



September 2014

Proposed HQ Office for MoneyPenny
Western Gateway, Wrexham

Design and Access Statement

B8266-AEW-RP-X-001

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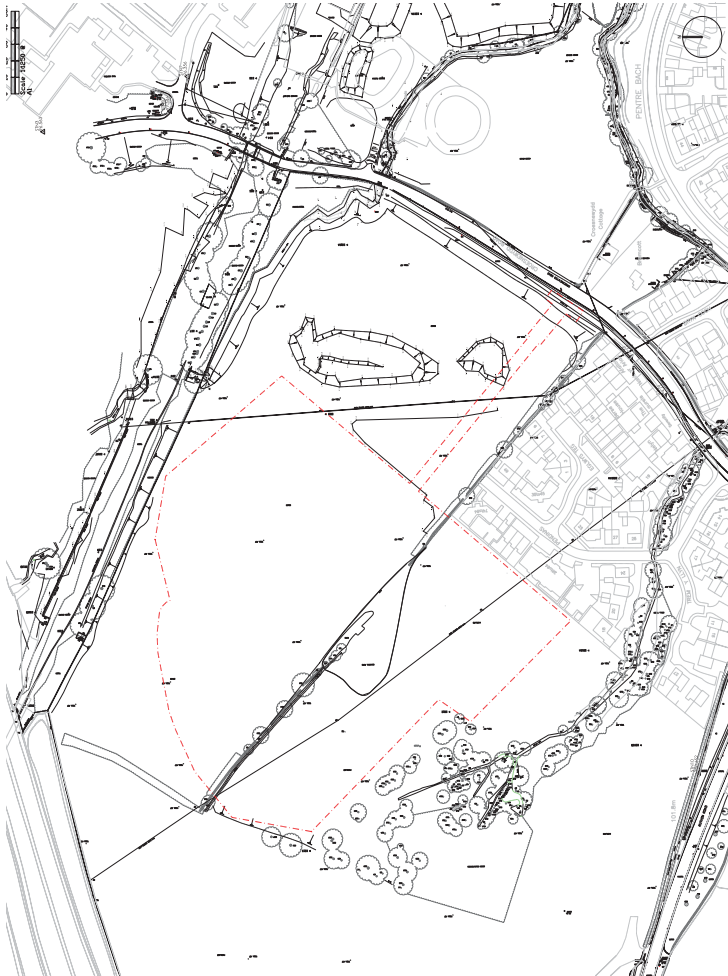
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Introduction



Location Plan

Scope of Design and Access Statement

The document sets out the brief planning history of the Western Gateway Development and highlights that this office developments accords with the aspirations of Wrexham Council and the original Western Gateway Masterplan. Relevant national planning policy is also referenced in support of this application.

The document goes on to explain the contextual analysis and thought processes that the design team explored to generate the concept design. We then further document how the design developed into a contemporary modern office building with integrated landscape proposals creating a true sense of place.

Other supporting information is also included within this document to support the level of technical design the consultant team have produced in exploring aspects such as drainage design, sustainability, and accessibility.

Other sections within this document address specific planning requirements such as flood risk and existing ecology.

Introduction

This Design and Access Statement has been prepared by AEW Architects & Designers Ltd on behalf of Moneypenny to support a full planning application for a new office development a plot within the Wrexham Northern Gateway Development.

The application seeks permission for nearly 100,000 sq ft new build office development over 3 storeys with associated landscaping, car parking and ancillary works.

The proposed development will provide a new headquarters for Moneypenny who are currently operating from a number of adjacent office buildings within the nearby Ellice Way Business Park. This new HQ building will allow Moneypenny to work more efficiently and provide much needed expansion space allowing this successful business to grow.

Members of the wider design team have also contributed to various sections within the document. Various sections of this document have been attributed to the relevant consultants including Cundall and Carolyn Willitts Design.



Site

Moneypenny

Moneypenny was established in 2000 and is the UK's leading telephone answering service and outsourced switchboard provider.

The most important aspect of Moneypenny's business is the welfare of their staff and due to the nature of the service they provide, staff retention is paramount. Although their core business is telephone based the current working environment is far from that of a call centre and is very much focussed on providing a comfortable relaxed homely environment.

However due to the success of the business it has grown at a faster rate than first anticipated and Moneypenny now occupy four buildings within the Ellice Way Business Park. Unfortunately this spread of staff across separate buildings counteracts their primary business ethos of staff welfare and inclusion.

A large new HQ building has therefore been envisaged by Moneypenny to bring everyone together under one roof while also providing future expansion space to accommodate further anticipated growth.

Moneypenny did not wish to leave the Wrexham area and so with Wrexham Council's help the Western gateway site was identified as a perfect location for this new HQ particularly as it is very close to their existing offices and therefore their staffs' commute to work will remain unchanged.

On several occasions Moneypenny have made The Sunday Times annual top 100 best companies to work for and are one of the largest private employees within the Wrexham Area.



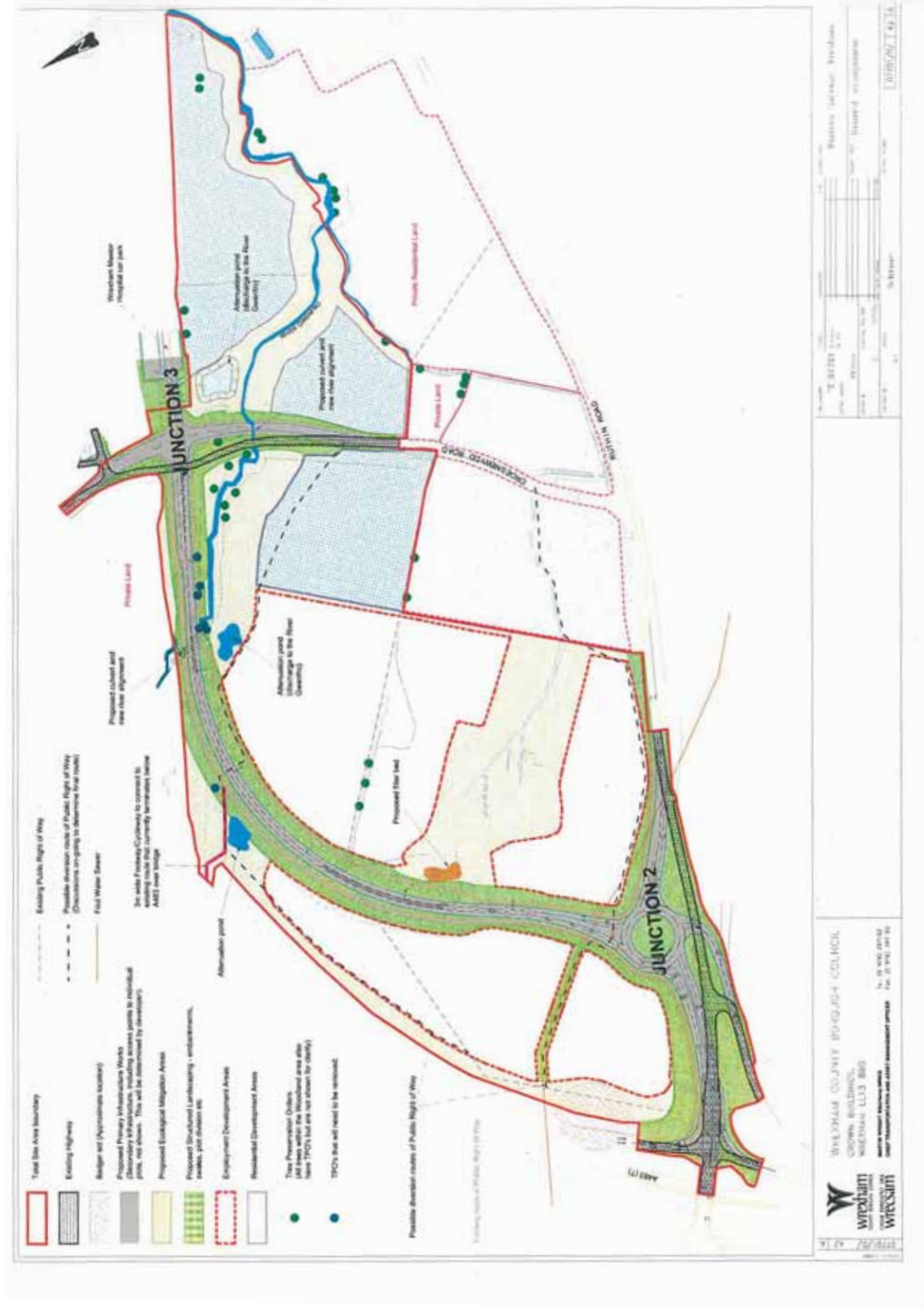
Planning

History

The current Unitary Development Plan (1996-2011) adopted in February 2005 designates the Western Gateway for high quality B1 employment use. This UDP remains current as the subsequent Local Development Plan of 2011 was withdrawn at the request of the Planning Inspectorate and an alternative LDP is yet to be adopted.

Masterplan Application

A Western Gateway Planning Development Brief was also adopted by Wrexham in March 2004 which formed the basis of the original master plan.



Planning Policy

This planning application is for the proposal of a 100,000 sq ft HQ office building for Moneypenny, therefore by this very nature the proposal aligns with the original masterplan intent of high quality, low density employment use. Because this original masterplan was adopted then the proposal will naturally adhere to UDP Planning Policy.

The proposed development also corresponds to the following relevant sections within Planning Policy Wales 2014 (national planning policy document).

Chapter 4 - Planning for Sustainability

This document defines sustainable development in Wales as “enhancing the economic, social and environmental wellbeing of people and communities, achieving a better quality of life for our own generations in ways which:

- promote social justice and equality of opportunity; and
- enhance the natural and cultural environment and respects its limits
- using only our fair share of the earth's resources and sustaining our cultural legacy.

Sustainable development is the process by which we reach the goal of sustainability.”

The design proposal provides inclusive access to all parts of the development refer to the Access Statement within this document. Sustainability has been an integral part of the design process. An initial BREEAM examination has shown that we are on target for a rating of Very Good. Further information of the sustainable aspects of this design are detailed in the Sustainability Section within this document.

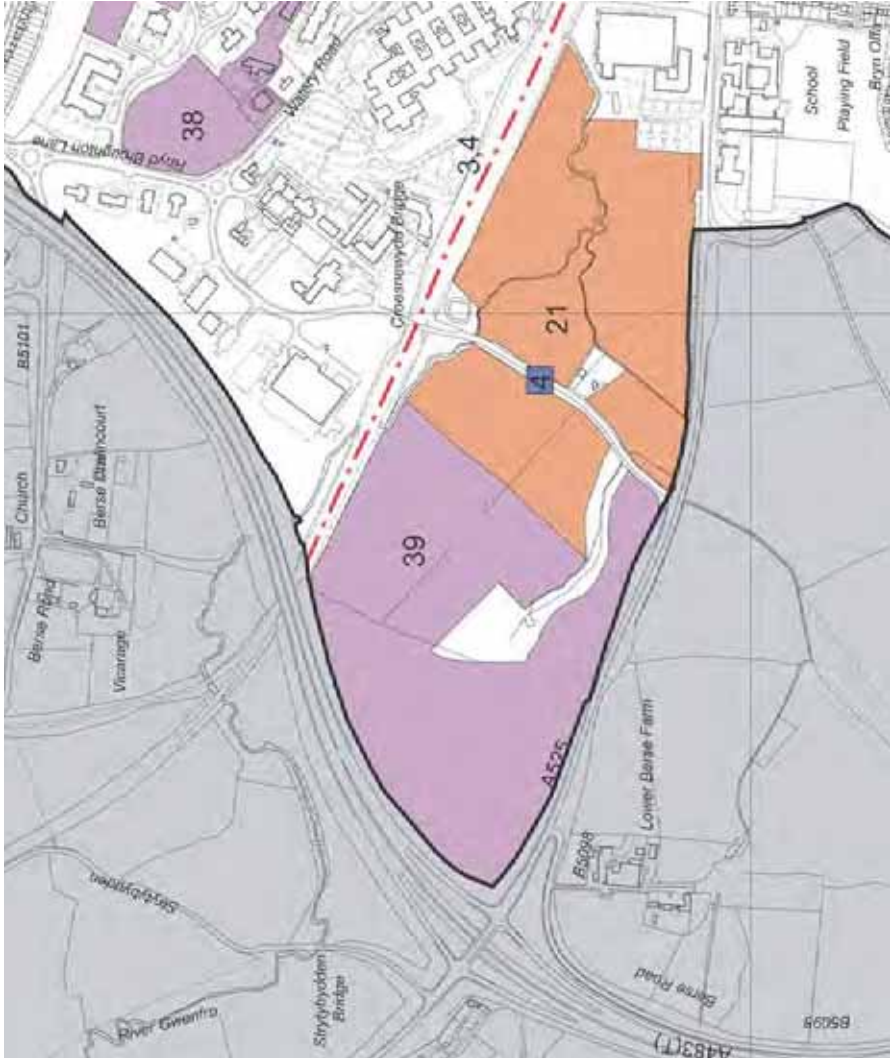
Chapter 7 - Economic Development

The purposes of this development is to accommodate the fast growing business of Moneypenny under one roof. Additional space, to that currently required, has been included in this proposal to accommodate future expansion space. Moneypenny is one of the largest independent employees within Wrexham and this development is specifically for their use, there by complying with the main objectives of Chapter 7 by generating wealth, jobs and income as a specific employment use.

Technical Advise Note 15 - Development & Flood Risk

A substantial documentation was prepared by Atkins as part of the 2010 road application, this included a Flood Consequence Assessment. As part of this application we have prepared a further statement that responds to this original documentation. Refer to section Statement of Compliance with FCA

In summary this is a significant employee locally based looking to invest in Wrexham to build new HQ premises for expansion purposes, on land that has been identified by Wrexham Council suitable for employment use.



Site Analysis

Location

The site is located on the western boundary of Wrexham Town Centre close to Junction 4 of the Wrexham By-pass (A483). To the east of the site is Wrexham Hospital.

The area is predominantly greenfield with the first phase of the Western Gateway Masterplan constructed to the south of the site. This is a residential development by Redrow providing a mixture of family houses and low rise apartments on a suburban street pattern. The northern corner of this residential development adjoins the southern corner of this development site.

A disused railway line runs east to west across the northern edge of the site and continues under the A483, currently this footpath is quite popular with walkers. The proposed location of the access trunk road will replace the majority of this disused railway line between Croesnewydd Road and the A483.

The site is approx 1 mile from Wrexham General Train Station, Wrexham Central Station and Wrexham Central Bus Station. Regular bus services serve the adjacent hospital along Croesnewydd Road including 9,10,11,12,16,x50,21A,26,D42,x94.

There are no nearby public car parks but adequate parking will be provided within the site.

Wider Location



Immediate Location

Surrounding Area

Wrexham Hospital

As mentioned before Wrexham hospital lies to the east of the site and is generally made up of 2 and 3 storey traditional looking buildings with large pitched roofs.

Adjacent Residential Development

The existing residential development to the south of the site consists of 2 storey houses and 3 storey apartment buildings laid out on a typical sinusoidal suburban street pattern. As part of the Western Gateway Masterplan further residential developments similar to this are proposed for the plots of land directly to the east and north of the site.

Woodland

A woodland area lies directly to the south west of the site adjoining our site boundary. This woodland has been allocated as the ecological mitigating area for the Western Gateway Masterplan.

Greenfields

An agricultural field bound by our site, the A483 and the A525 (Ruthin Rd) lie to the east of our plot and is identified as future development (employment) land as part of the Western Gateway Development.



Neighbouring Residential Area



Nearby Hospital

Site

The site consists of 2 adjoining open field with no existing direct vehicular access. Across the middle of the site runs from north west to south east an existing hedgerow which divides the 2 fields. Along the hedge row are 3 protected trees and a small seasonal pond. A small woodland runs along the southwest boundary of the site.

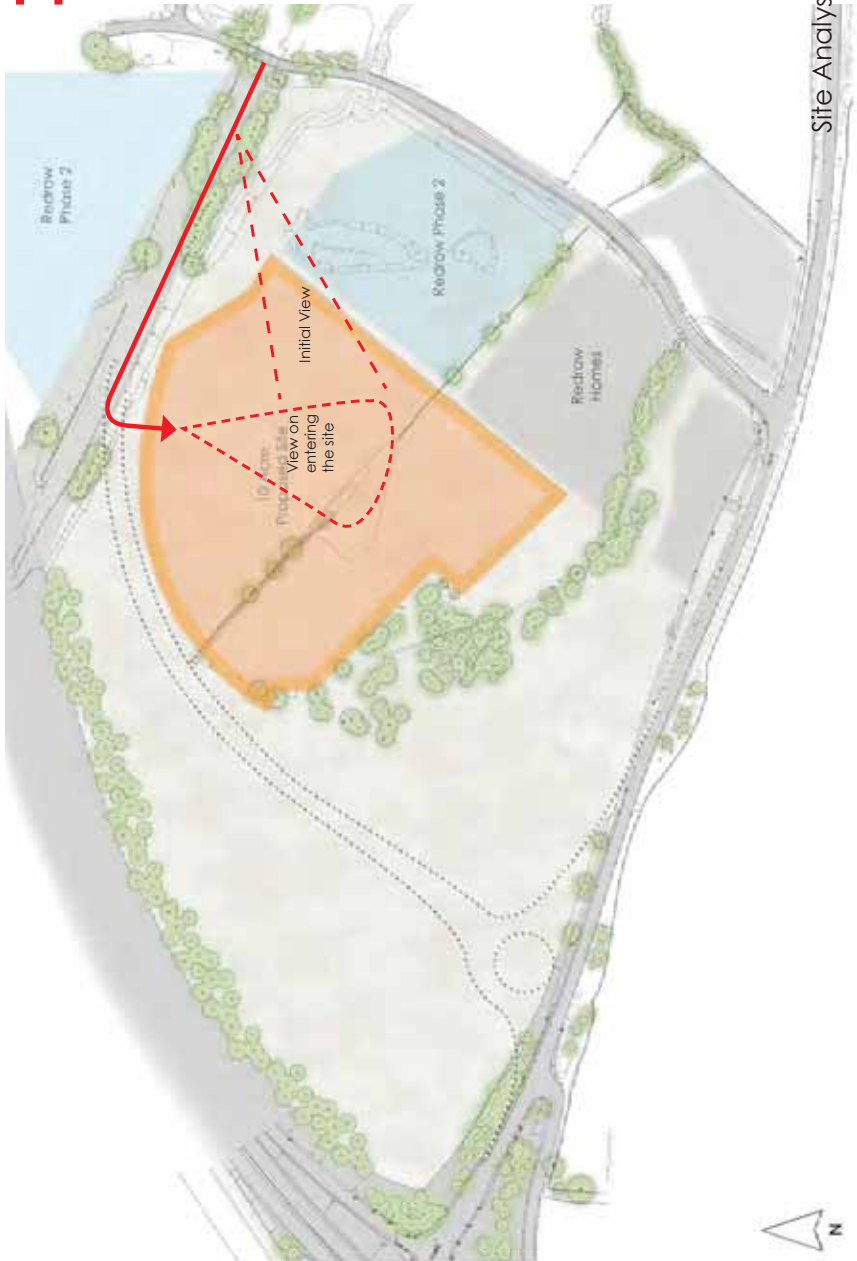


Existing Constraints

- Hedge row.
- TPO's
- Seasonal pond.
- Raised landscape buffer to slip road off A483 creates a sense of enclosure. The background noise traffic noise emanating from the A483 is also an external influence on the site.



Proposed Access Approach Views



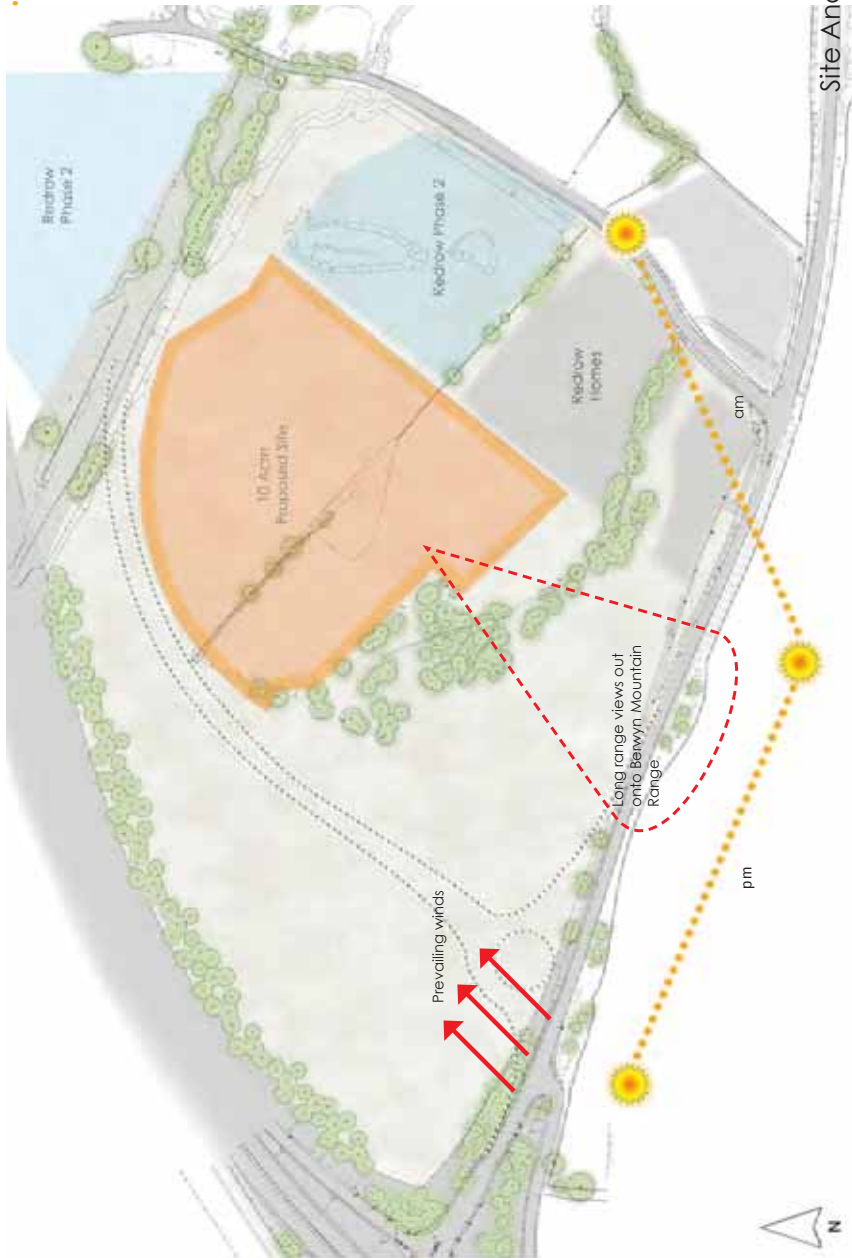
Site Approach

- The site will be approached by all along the new access road which will replace the majority of the adjacent former rail line. Due to the proposed site access junction location views into the site will be created on approach before turning into the site. This potential changing view of the site and building during approach can enhance the sense of arrival.

External Influences

Sun path, prevailing winds and long distance views will be considered when orientating the building on the site. This can help minimise potential solar heat gain and capitalise on views out from the building.

Sunpath



Site Analysis - External Influences



Site Analysis - Movement

Movement

Existing vehicular and pedestrian movements around the site are highlighted here. Long term aspirations of Wrexham Council are to extend the access road South West to join with the A525 (Ruthin Road) to create a trunk road and remove heavy traffic that currently passes through the residential development to access the A525.

Design Approach

Response to client brief

AEW were successful in winning an invited architectural design competition for a new 100,000sq.ft HQ office building for Moneypenny. The design brief asked for an inspiring contemporary design that provides a high standard office accommodation around a central support area. The central support area was to be a focal point of the building promoting social interaction amongst staff.

The building was to have a strong relationship with the green surrounding semi rural environment of the site.

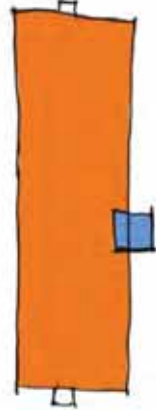
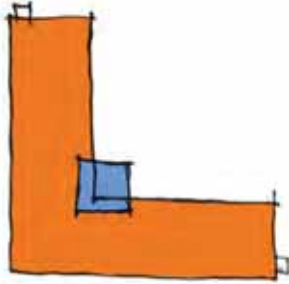
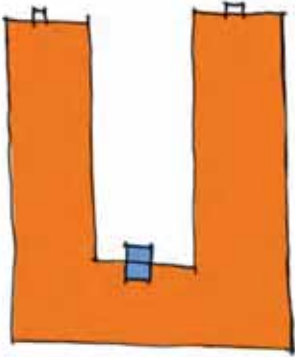
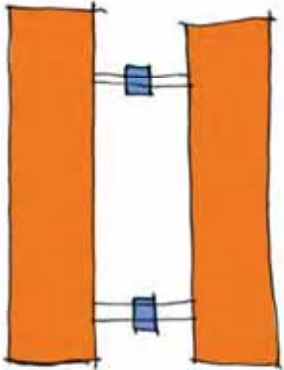
The office accommodation was to afford good views out to all staff with elements of homeliness and fun internally.



Office Building Typology

All standard new build office design derives from an orthogonal floor plan sufficiently wide enough to maximise desk space while keeping a work station no more than 10m from a window (natural daylight). Double sided office floors are generally 18m wide. The length of the floor plates can vary and are influenced by the land available, travel distances to fire escapes and a sensible proportion of width to length. General orthogonal office floor plates will not exceed 90m. If the area requirement is great enough to require a longer floor plate the plan will most likely take on the form of an L shape or U shape. This can lead to the addition of an atrium to improve the efficiency of the design, create greater connectivity internally while maintaining good natural daylight levels.

Typology Development



Windows are provided at least every 3 meters within an office facade to provide maximum flexibility for the internal arrangement.

Concept

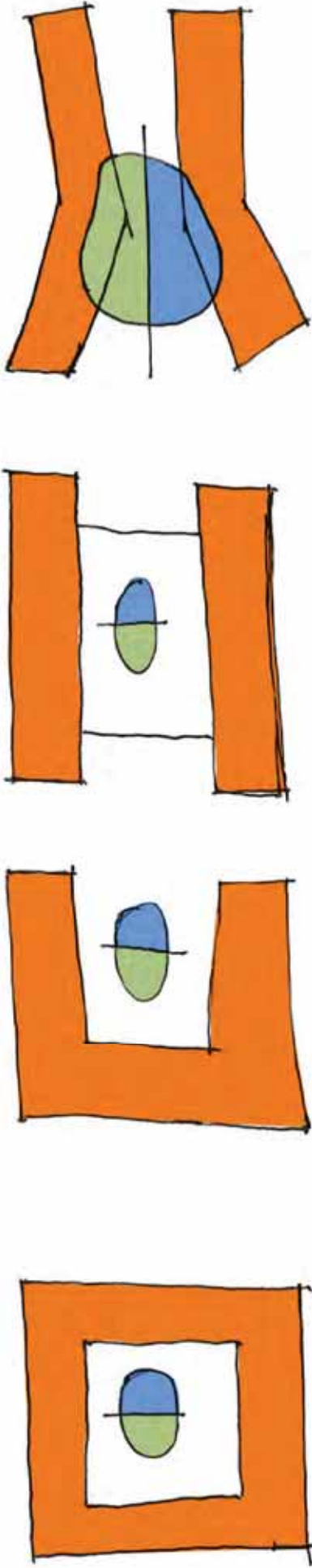
To produce a contextual design that responds to the surrounding green environment sympathetically whilst having a strong visual impact that is synonymous with the Money Penny working ethos and provides an exciting vibrant working environmental for their staff.

To achieve this a ground hugging sculptural form was conceived to create the sense of an object sat in the landscape.

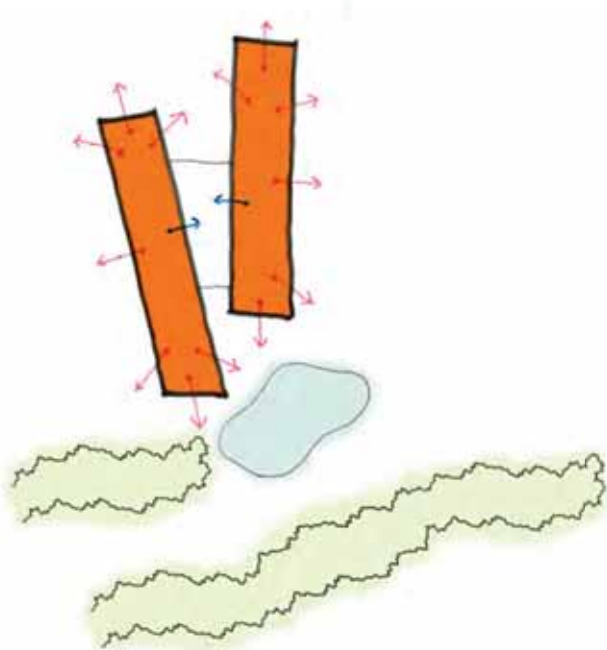
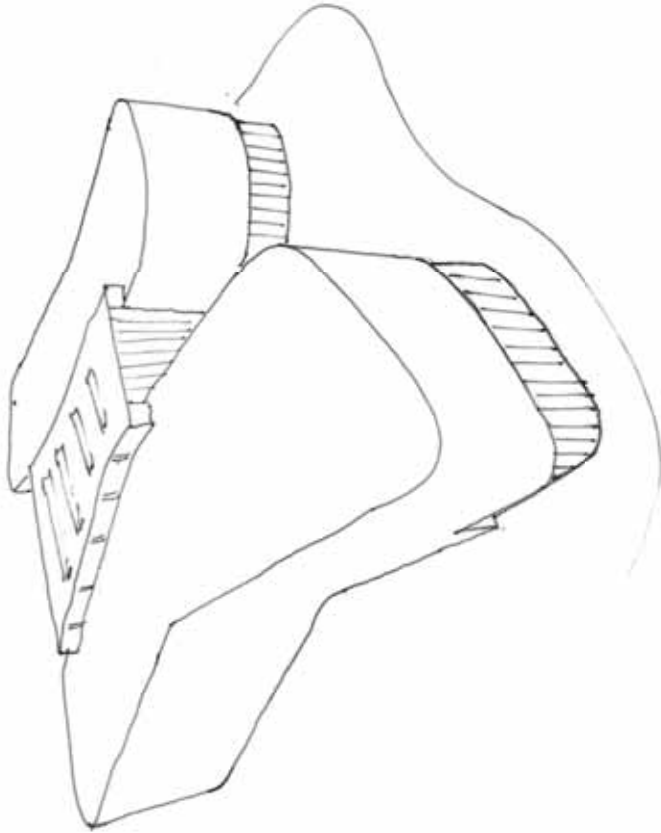
The existing natural features on the site should be celebrated and the relationship between the building and these features should be deliberately strengthened. The existing hedge row and large trees should be retained and the building positioned close enough to these features so they can be viewed and appreciated from within. It was also conceived that the seasonal pond could be extended to create a bigger water feature and an external seating area for the canteen could have a strong relationship with the water. This larger water feature can be used to collect surface water run off from the site.

Our intention to economically accommodate this large floor area requirement while providing a central focal (support) area naturally lead to an atrium office design solution.

These fingers should be arranged asymmetrically and the ends of the atrium set back to help maximise views out from the office accommodation.



Atrium Typology Development



Site Arrangement

Orientation

To minimise solar heat gain and therefore maximise the efficiency of the mechanical heating & cooling system, the building should be orientated on an east west axis.

The high angle of the summer sun for the majority of the day is easily kept out of the building by shading the windows on the south facing elevations by external louvers. This prevents the building from over heating and allows the mechanical cooling system to work efficiently during the summer months.

The low angle of the occasional winter sun will penetrate into the building (through the louvers) and assist in warming the office space allowing the mechanical heating system in winter to work more efficiently. This approach helps minimise the energy consumption of the building throughout the year.

Approach

Due to the orientation of the access road views into the site will be offered from the access road as vehicles and pedestrians approach along the road. This can be used to provide a changing view of the building on the approach before turning to access into the site with a straight view of the building. We believe this procession will enhance the sense of arrival.

Building Position

The building needs to be positioned close to, but not effecting the seasonal pond and protected trees.

The building needs to be a sufficient distance from the adjacent housing development

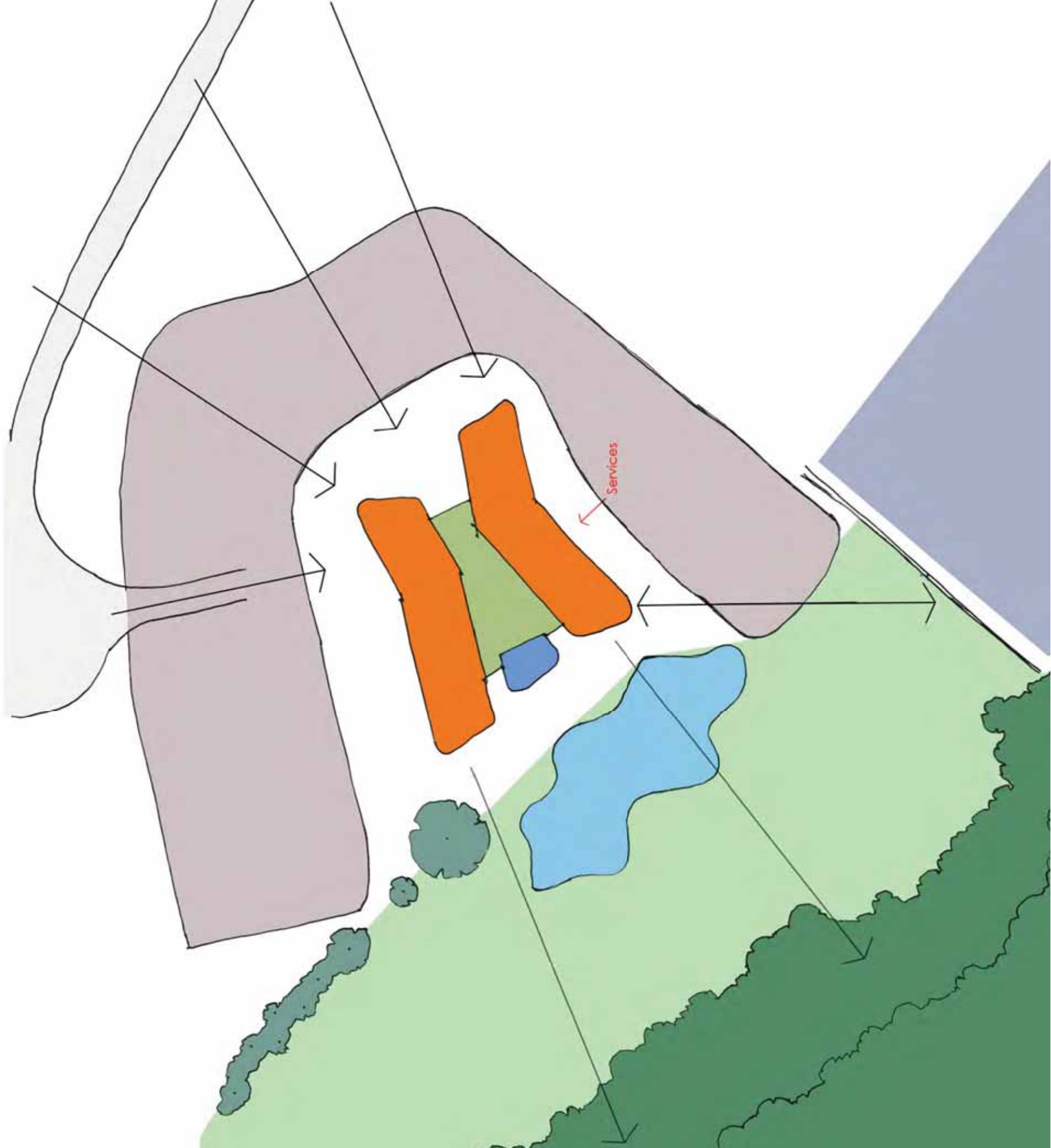
Car parking should be concentrated in an area around the entrance to the building allowing a maximum amount of greenery to be retained.

Potential long distance views of the Berwyn Range to the south west should be captured from within the building if possible, particularly from the upper floors.

Servicing Strategy

A service entrance is positioned centrally in the south elevation away from the site access and main entrance. All deliveries and collections will use this entrance. A designated lay-by has been indicated on the site plan in this area for delivery vehicles.

The bin store is located within the outbuilding adjacent to this service entrance and refuse collection will also take place at this point.



Landscape Design and Ecology Statement

Site Analysis

1. The Site
2. Phase 1 of the Spine Road
3. Existing trees in hedgerow
4. Seasonal pond
5. Existing hedgerow
6. Broad-leaved woodland
7. Young woodland
8. Open views into woodland
9. Crops in field
10. Redrow Works Site
11. Redrow Housing Development
12. A525 Ruthin Road
13. A483



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Western Gateway, Wrexham Design & Access Statement - Landscape Proposals September 2014



The Site

The site is situated on the western outskirts of Wrexham, to the west of Croesnewydd Road, and to the north of the Redrow Housing development.

The site comprises agricultural fields and rough grassland, and is bisected by an existing hedgerow incorporating two oaks and a sycamore with tree protection orders, and a seasonal pond.

There is an area of woodland to the south which is shown on the 1832 OS map. The 1841 Tithe map suggests that historically the site comprised meadow, arable and pastureland on low-lying ground, interspersed with ponds.



North west corner of the Site

Photo Panorama Locations

- 1. View looking south west
- 2. View looking south east
- 3. View looking north
- 4. View looking south



Panoramas 1 & 2



1. View looking south west towards the hedgerow from the eastern corner of the site



2. View looking south east towards the housing from beyond the hedgerow

Panoramas 3 & 4



3. View looking north towards the hedgerow and reed bed from the southern corner of the site

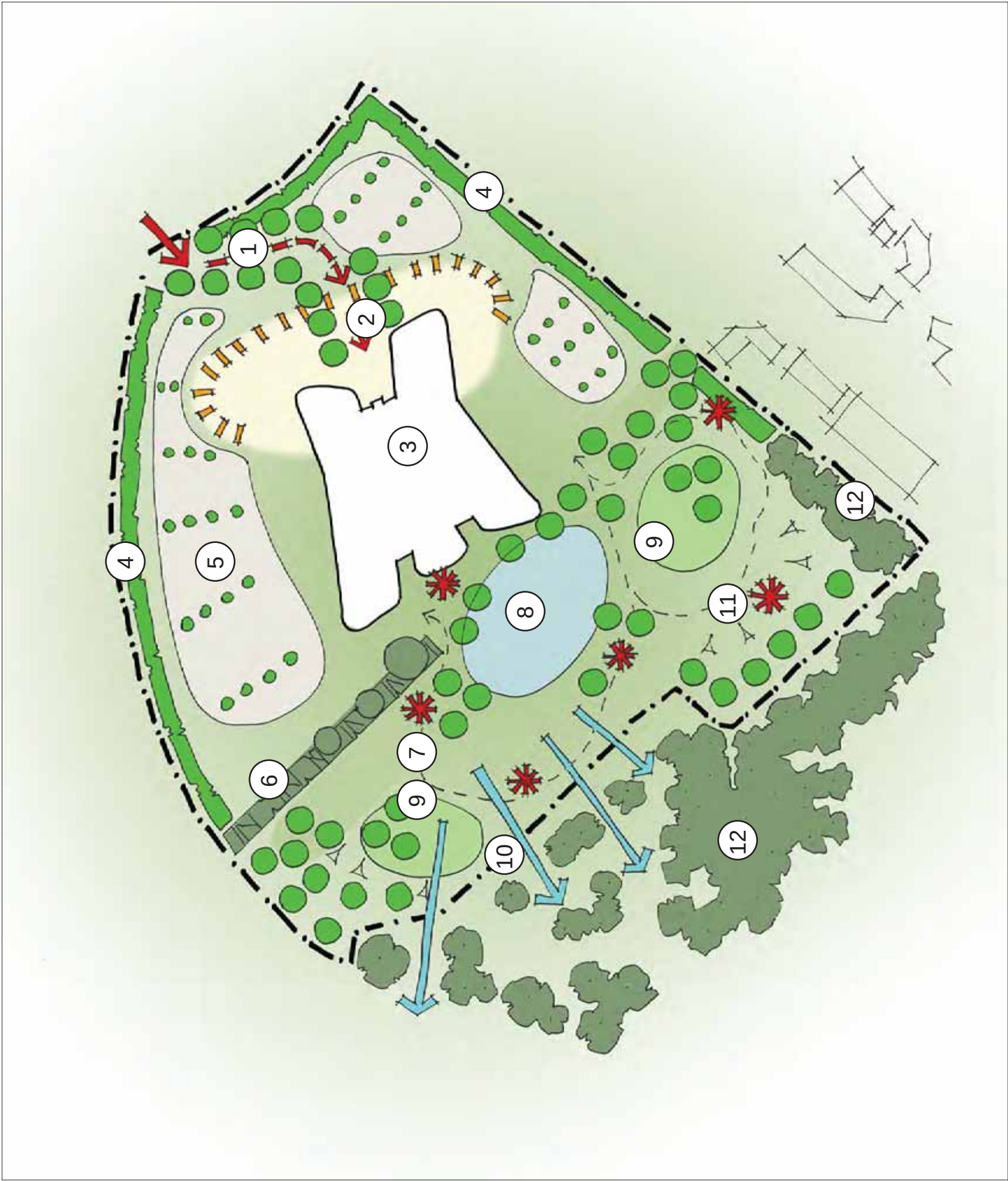


4. View looking south towards the woodland from the top trees within the hedgerow

Concept Plan

The main concept for the design is to work enhance the incredible rural setting this location provides for the building, and to create a landscape that is relaxing and inspiring for the employees of Moneypenny.

- 1. Entrance
- 2. Arrival
- 3. The Building
- 4. Screening planting
- 5. Car park with trees and planting
- 6. Existing hedgerow and trees
- 7. Mown paths through the meadow
- 8. Proposed wetland
- 9. Meadows
- 10. Views into existing woodland
- 11. Meadow path with seating areas
- 12. Existing woodland



Landscape Proposals - Masterplan

1. Moneypenny Headquarters
2. Entrance
3. Frontage
4. Car park
5. Screening planting
6. Deck
7. Wetland
8. Detention basin/wet meadow
9. Hoggin path
10. Seating within birch grove
11. Tree planting on mounds
12. Open views into existing woodland
13. Existing hedgerow retained
14. Existing hedgerow thinned
15. Orchard on mown meadow grid
16. Seating stones in a mown circle
17. Mown paths through the meadow

Sustainability

Our aim is to create an ecologically robust landscape that responds to drainage and ecology in a way that is sustainable for future generations.

Sustainable drainage (SuDS) will be used to collect the surface water from the car park and building, filter it and discharge it into the wetland. This also creates a pleasant environment for the employees of Moneypenny and encourages biodiversity.

Areas of broad-leaved woodland, wet woodland planting, native tree planting, and species rich wildflower grassland creation are proposed, as well as locations where existing vegetation will be retained. Woodland planting along the boundary of the site will link the central woodland to the river corridor.

Landscape Access

Level access will be provided through the car park, around the building and to the entrance of the building.



Landscape Proposals - Precedent Images



Entrance forecourt, grasses moving in the wind like the reeds beyond



Mown path through meadow



Reeds in a wetland

Landscape Proposals - Entrance and Arrival

A contemporary stone walkway leads to the entrance through a landscape of tall swaying grasses, echoing the natural landscape beyond. Directional paths pre-empt desire lines and create interesting spaces. Stone artwork benches offer places to sit and meet, while creative lighting makes the space feel safe and secure after dark.

Planting beds feature an 'ornamental meadow' planting style; swathes of grasses with some flowering perennials as highlights. Layering of spring bulbs completes the seasonal transformations against a dense background of formal evergreen yew hedges.

- 1. Stone walkway to entrance
- 2. Ornamental grasses planting
- 3. Formal tree planting
- 4. Formal hedge planting
- 5. Vehicle drop off





Ornamental grasses arching over pathway



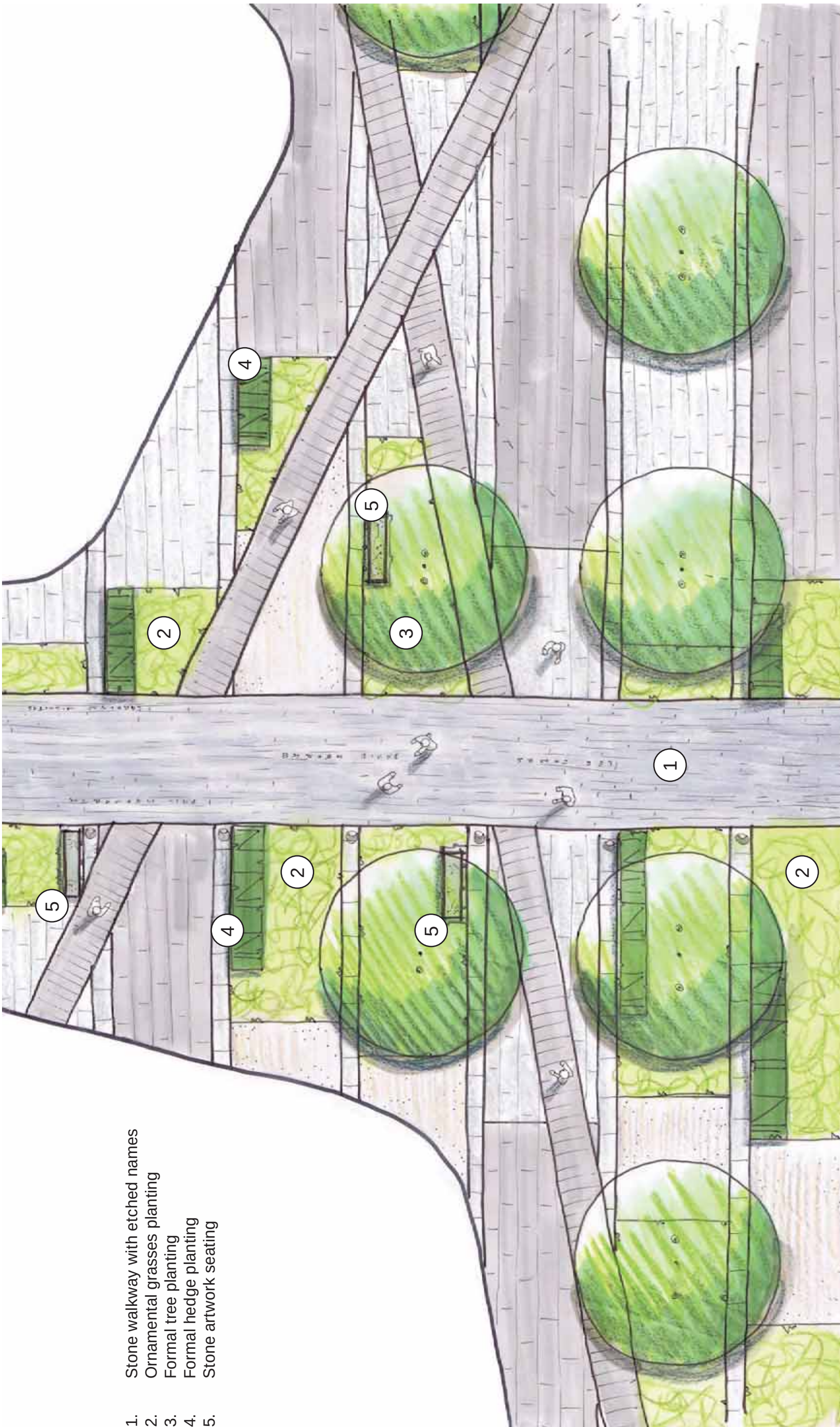
Stone plank walkway with low planting



Grasses with golden flower heads in autumn

Landscape Proposals - Entrance and Arrival - Sketch Plan

- 1. Stone walkway with etched names
- 2. Ornamental grasses planting
- 3. Formal tree planting
- 4. Formal hedge planting
- 5. Stone artwork seating



Landscape Proposals - Entrance and Arrival - Planting



Formal yew hedge



Anthriscus sylvestris 'ravenswing' - black leaved cow parsley



Anemanthele lessoniana, evergreen ornamental grass



Ornamental grasses echoing reeds along a boardwalk



Ornamental grasses along a pathway

Landscape Ideas - Entrance and Arrival - Illustrative Image



Landscape - Entrance and Arrival - Indicative Palette of Materials



Carlow Blue Limestone



Grey granite



Kobra grey granite



Loose gravel



Concrete pavers with granite aggregate



Striped bands in paving



Stone 'planks'



Employees names etched into paving



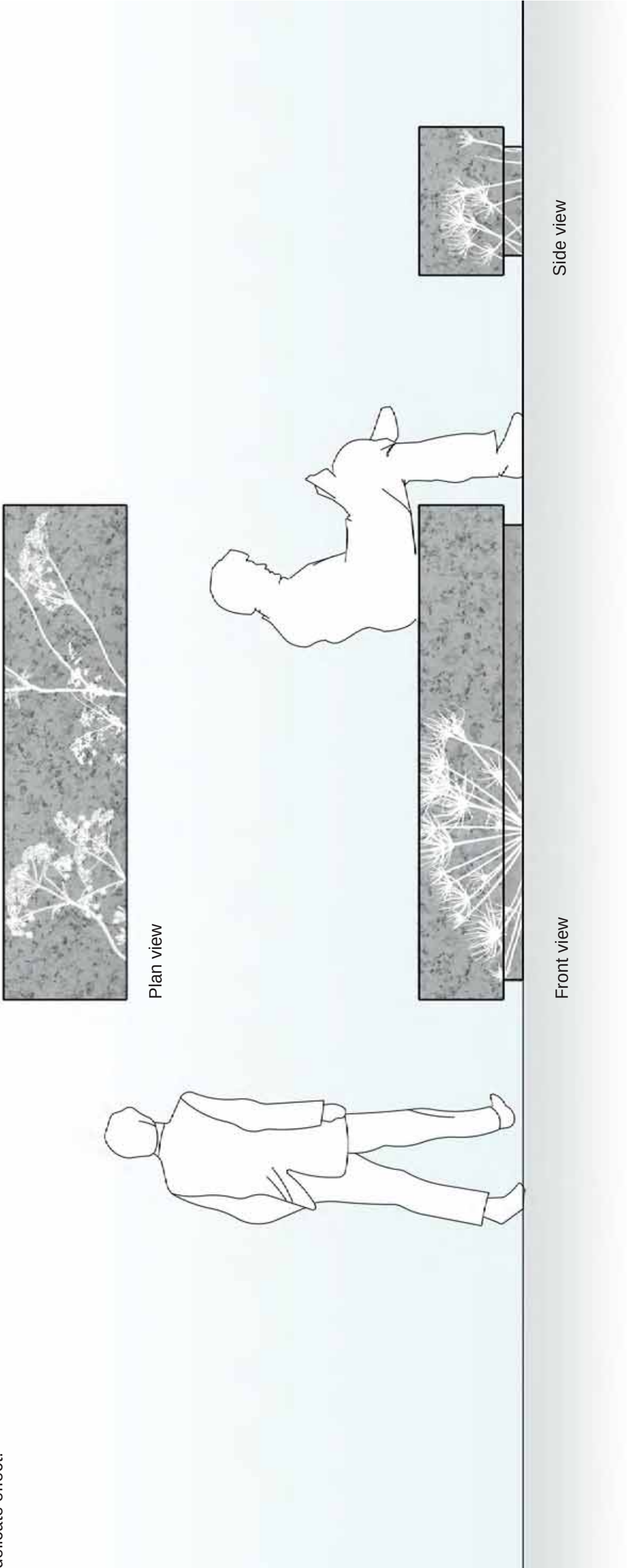
Inground path lighting



Inground path lighting

Landscape Proposals - Entrance and Arrival - Seating

This indicative image of the stone benches in the Entrance Forecourt shows the cow parsley motif inspired by the existing vegetation on site. Patterns can be created through a combination of polishing and sandblasting the stone to achieve a detailed and delicate effect.



Landscape Proposals - Entrance and Arrival - Seating Inspiration



Cow parsley seed heads on the site, July 2014



Silhouette of cow parsley seed heads



Artwork etching on a stone bench

Landscape Proposals - The Garden Meadow

“Dôl yr Ardd” or “The Garden Meadow” was a name given to part of this site on the 1841 Tithe map.

A hoggin path meanders through groves of trees, while mown paths in the long grass meadows offer additional routes for a lunchtime walk. Landscape ‘events’ are situated along the route; a timber platform that can be used as a picnic bench or for an impromptu meeting on a sunny day, and stone seating blocks in the meadow with inspirational quotations carved in.

An orchard planted on a grid of mown paths in the meadow, lined up on the building’s axis, adds a contemporary edge to a rural feature.

The wetland links up to the existing small pond, topped up with filtered surface water from the building and car park, while a wet meadow detention basin is designed to hold any overflow in severe weather. This wet meadow is named “Dôl Fechan”, “The Little Meadow”, another name taken from the 1841 Tithe map of the area.

- 1. Deck with viewing platform
- 2. Wetland
- 3. Hoggin footpath
- 4. Orchard planted in a mown meadow grid
- 5. Seating stones in mown circle
- 6. Mown paths in meadow
- 7. Birch grove underplanted with ferns
- 8. Wet meadow/detention basin
- 9. Existing woodland
- 10. Veteran oak tree, 400 - 500 years old.



Landscape Proposals - The Garden Meadow



Viewing platform over wetlands



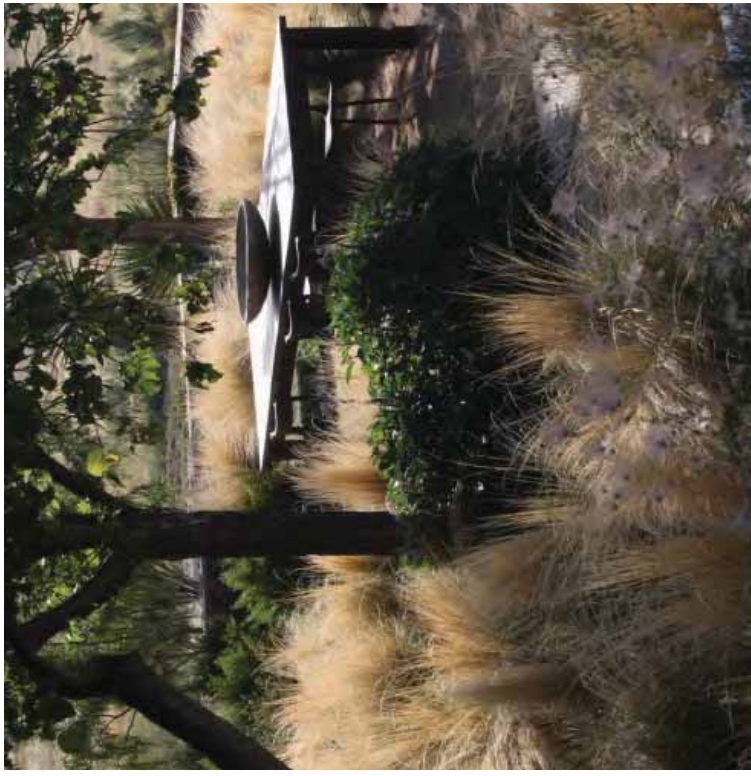
Simple boardwalk through ferns



Mown path in meadow



Timber deck in birch grove



Picnic table in the trees

Landscape Proposals - The Garden Meadow - Illustrative Image



Landscape Proposals - The Garden Meadow



Wildflower meadow



Sculptural stones in mown circle



Mown path through meadow



Existing small pond in the site in Wrexham

Landscape Proposals - Soft Landscape Character Areas



- 1. Site Entrance
- 2. Car Park
- 3. Boundary
- 4. Entrance Frontage
- 5. Meadow Grassland
- 6. Wetland

Landscape Proposals - Soft Landscape Character Area 1: Site Entrance

Design Intent

- To provide high quality entrance to the site

Landscape Design Principles

- Mown lawn with bulbs for seasonal interest
- Specimen Tree Planting to match proposed spine road tree specification

Indicative Plant List

Trees (Specimen)

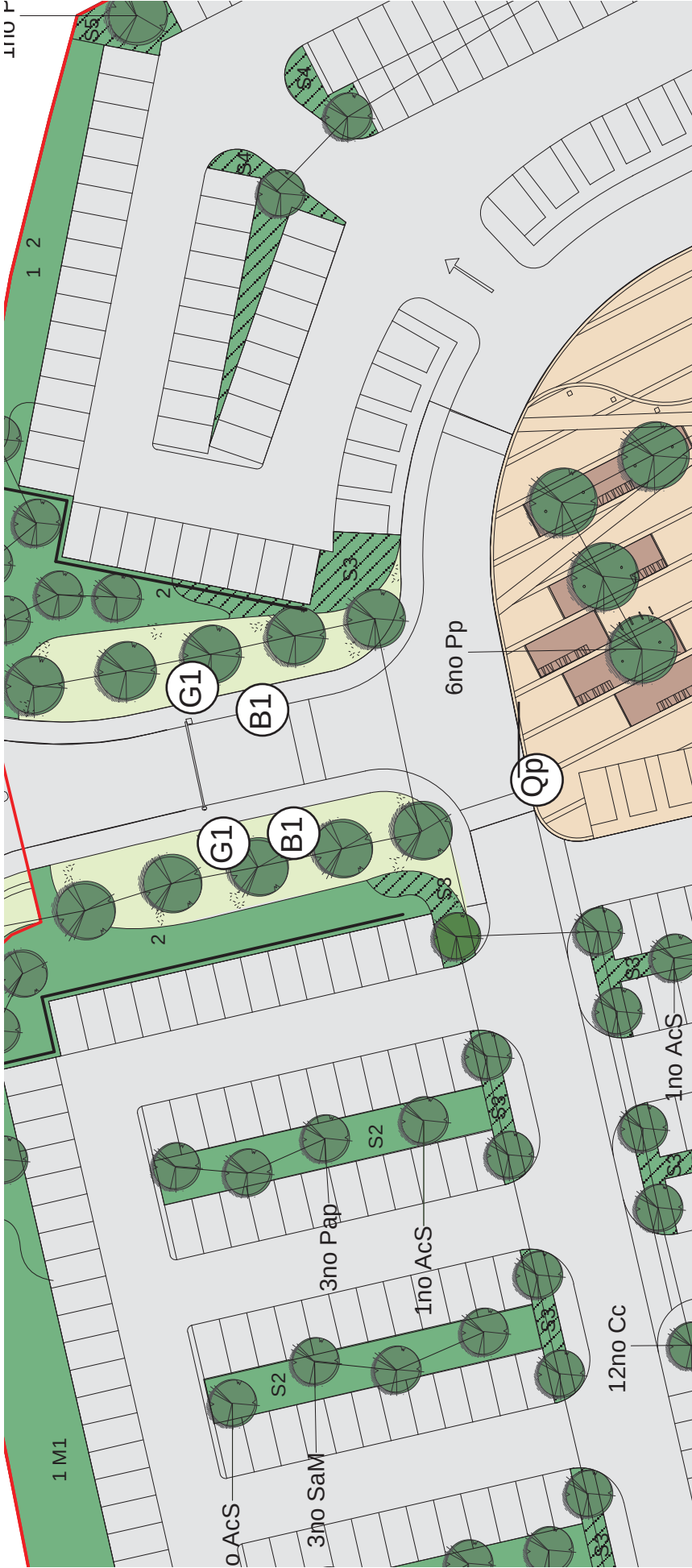
Quercus palustris (Qp)

B1 Bulbs

Chionodoxa lucillae
Muscari armeniacum
Narcissus pseudonarcissus

G1 Lawn

Rowlawn Medallian Turf (or similar)



Quercus palustris



Chinodoxa lucillae



Narcissus pseudonarcissus

Landscape Proposals - Soft Landscape Character Area 2: Car Park

Design Intent

- To provide robust green infrastructure which works for screening, fits the development into its setting, and creates green corridors for wildlife movement

Landscape Design Principles

- Large planting beds designed to aid plant establishment and growth
- Semi-ornamental specimen tree planting and irregular spacing to ensure skyline views are in keeping with setting
- Filter views of the tarmac expanse
- Specification of berrying species for wildlife benefit

Indicative Plant List

Trees (Specimen)

Acer campestre ‘Streetwise’ (AcS)
Corylus colurna (Cc)
Prunus avium ‘Plena’ (PaP)
Sorbus aria ‘Majestica’ (SaM)

S2 Woodland Edge Planting Belt (1+1 BR Transplants)

Amelanchier lamarckii
Corylus avellana
Crataegus monogyna
Ilex aquifolium
Prunus laurocerasus ‘Etna’
Rosa canina
Sambucus nigra
Viburnum opulus

S3 Medium Semi-Ornamental Planting (1+1 BR Transplants and 2L)

Alnus glutinosa
Amelanchier lamarckii
Escallonia macrantha
Prunus laurocerus ‘Etna’

S4 Low Laurel Planting (2L)

Prunus laurocerus ‘Zabeliana’



Landscape Proposals - Soft Landscape Character Area 2: Car Park

S5 Low Semi-Ornamental Edge Planting (2L)

- Cornus sericea 'Kelsey'
- Rosa rugosa 'Alba'
- Symphoricarpos x chenaultii 'Hancock'
- Viburnum davidii

S6 Low Semi-Ornamental Edge Planting (2L)

- Cornus sericea 'Kelsey'
- Helleborus argutifolius
- Prunus laurocerous 'Zabeliana'

Grassland

Emersgate seeds: EF1F Hedgerow Mixture



Wooded Semi-Ornamental Car Park



Corylus colurna

Landscape Proposals - Soft Landscape Character Area 3: Boundary

Design Intent

- To provide robust green infrastructure which works for screening, fits the development into its setting, and creates green corridors for wildlife movement

Landscape Design Principles

- Predominantly native planting with additional species of known wildlife benefit specified
- Semi-ornamental species with high density evergreen species located adjacent to housing area
- Reintroducing locally rare black poplar back into the site
- Specification of edible plants for wildlife and human consumption

Indicative Plant List

Trees (Specimens)

Acer campestre (Ac)
Alnus glutinosa (Ag)
Prunus avium 'Plena' (PaP)
Querus robur (Qr)

Mix W1A: Woodland (1+1 BR Transplants)

Alnus glutinosa
Betula pendula
Prunus avium
Prunus domestica
Prunus cerasifera
Pyrus communis
Querus robur
Sorbus aucuparia
Ilex aquifolium
Ligustrum vulgare
Malus sylvestris
Rosa arvensis
Rosa pimpinellifolia
Salix caprea
Sambucus nigra
Viburnum opulus



Landscape Proposals - Soft Landscape Character Area 3: Boundary

Mix W1B: Wet Woodland (1+1 BR Transplants)

- Alnus glutinosa
- Betula pubescens
- Populus nigra 'Betulifolia'
- Querus robur
- Ligustrum vulgare
- Malus sylvestris
- Rosa arvensis
- Rosa pimpinellifolia
- Salix caprea
- Salix cinerea
- Sambucus nigra
- Viburnum opulus

Mix W2: Woodland Shrubs (1+1 BR Transplants)

- Ilex aquifolium
- Ligustrum vulgare
- Malus sylvestris
- Rosa arvensis
- Rosa pimpinellifolia
- Salix caprea
- Sambucus nigra
- Viburnum opulus

Mix W3: Semi-Ornamental Woodand Planting (1+1 Transplants and 2L CG Plants)

- Alnus glutinosa
- Betula pendula
- Prunus avium
- Prunus domestica
- Prunus cerasifera
- Pyrus communis
- Querus robur
- Sorbus aucuparia
- Amelanchier lamarckii
- Cornus sanguinea 'Midwinter Fire'
- Cotoneaster frigidus
- Daphne odora

- Elaeagnus angustifolia
- Hamamelis mollis
- Ligustrum vulgare
- Malus sylvestris
- Prunus lauroceraus
- Rosa arvensis
- Rosa pimpinellifolia
- Salix caprea
- Sambucus nigra
- Sarcococcia confusa
- Viburnum opulus
- Viburnum opulus 'Roseum'

Mix S7: Edibles (BR)

- Prunus spinosa
- Ribes rubrum
- Ribes nigrum
- Ribes sanguineum
- Ribes uva-crispa
- Sambucus nigra

Mix S8: Edibles (1L CG)

- Allium schoenoprasum
- Clinopodium vulgare
- Fragaria vesca
- Mentha spicata
- Mentha suaveolens
- Origanum vulgare

Grassland

- Mix M1: Emersgate seeds: EF1F Hedgerow Mixture or similar



Woodland Planting

Landscape Proposals - Soft Landscape Character Area 4: Entrance Frontage

Design Intent

- To provide high quality Entrance Frontage

Landscape Design Principles

- Large flowering cherries to compliment building materials and provide for seasonal interest
- Mass planting of grasses and perennials to provide beauty and movement within an ‘ornamental meadow’
- Yew Hedges to provide evergreen structure
- Bulbs for seasonal interest

Indicative Plant List

Trees (Large Specimens)

Prunus pandora (Pp)
Carpinus betulus ‘Frans Fountaine’ (CbFF)

P1: Ornamental Grass Planting (3L-5L)

Anemantele lessoniana
Calamagrostis brachytricha
Calamagrostis x acutiflora “Karl Foerster”
Miscanthus sinensis “Gracillimus”
Miscanthus sinensis “Gracillimus”
Panicum virgatum
Pennisetum alopecuroides “Hameln”
Pennisetum “Fairy Tails”
Pennisetum macrourum
Stipa gigantea
Stipa tenuissima

P1: Ornamental Perennial Planting (3L-5L)

Anthriscus sylvestris ‘Ravenswing’
Cirsium rivulare “Atropurpureum”
Salvia x sylvestris “Mainacht”
Sanguisorba “Tanna”
Verbena bonariensis

Bulbs

Allium sphaerocephalon
Allium stipitatum “Mount Everest”
Tulipa “Queen of Night”
Tulipa “White Dream”



Landscape Proposals - Soft Landscape Character Area 4: Building Frontage



Allium sphaerocephalon



Calamagrostis x acutiflora "Karl Foerster"



Stipa tenuissima with Salvia x sylvestris "Mainacht"



Allium stipitatum "Mount Everest"



Verbena bonariensis

Landscape Proposals - Soft Landscape Character Area 4: Meadow Grassland

Design Intent

- To provide high quality recreation for employees
- Increase species diversity on site
- Retention and protection of veteran oak tree

Landscape Design Principles

- Seeding of diverse wildflower grasslands
- Ornamental specimen tree planting
- Orchard planting
- Extension of existing woodland into the site
- Seeding long grass beneath oak tree to reduce need for mowing

Indicative Plant List

Trees (Specimen)

Acer platanoides ‘Drummondii’ (ApD)

Acer rubrum (Ar)

Alnus glutinosa (Ag)

Betula utilis var. *jacquemontii* 'Grayswood Ghost' (BujGG)

Fagus sylvatica 'Purpurea' or 'Riversii' (FSP)

Prunus avium 'Plena' (PaP)

Quercus robur (Qr)

Quercus robur 'Fastigiata' (QrF)

Prunus domestica sp (3 varieties)

P3: Ferns under Birch Grove (2L-3L)

Bergenia 'Silberlicht'

Cyclamen hederifolium

Dryopteris filix-mas

Helleborus niger

B2: Woodland Bulbs

Allium ursinum

Eryanthis hyemalis

Galanthus nivalis

Hyacinthoides non-scripta

M1: Meadow Grassland

Emersgate seeds: EF1F Hedgerow Mixture or similar

M2: Meadow Grassland

Wildflowersuk.com -Fertile Soil (Wildflower & grass mix) mixture, sow at 4Kg per m2 or similar

M3: Meadow Grassland

British Seed Houses WFG4 'neutral soils mix' 5g/m² or similar

Landscape Proposals - Soft Landscape Character Area 6: Wetland

Design Intent

- To enhance wildlife interest of site
- To provide an ornamental feature for employees to view
- Provide for natural site drainage

Landscape Design Principles

- Retention of existing wetland
- Creation of a new pond with variable water levels to provide suitable conditions for diverse plant growth and escape ledges Specification of non-invasive native wetland planting

Indicative Plant List

Trees

- Alnus glutinosa (Ag)
Salix babylonica var. pek tortuosa (Sbpt)

P4: Marsh Perennials (0mm-10mm depth)

- Calla palustris
Eriophorum angustifolium
Juncus effusus
Lysimachia vulgaris
Lythrum salicaria

P5: Shallow Wetland Perennials (10mm-30mm depth)

- Alisma plantago-aquatica
Butomus umbellatus
Calla palustris
Caltha palustris
Iris pseudocorus
Hottonia palustris
Sagittaria sagittifolia
Veronica beccabunga

P6: Phragmites australis (Transplanted rhizome)

P7: Submergants (40mm-50mm depth)

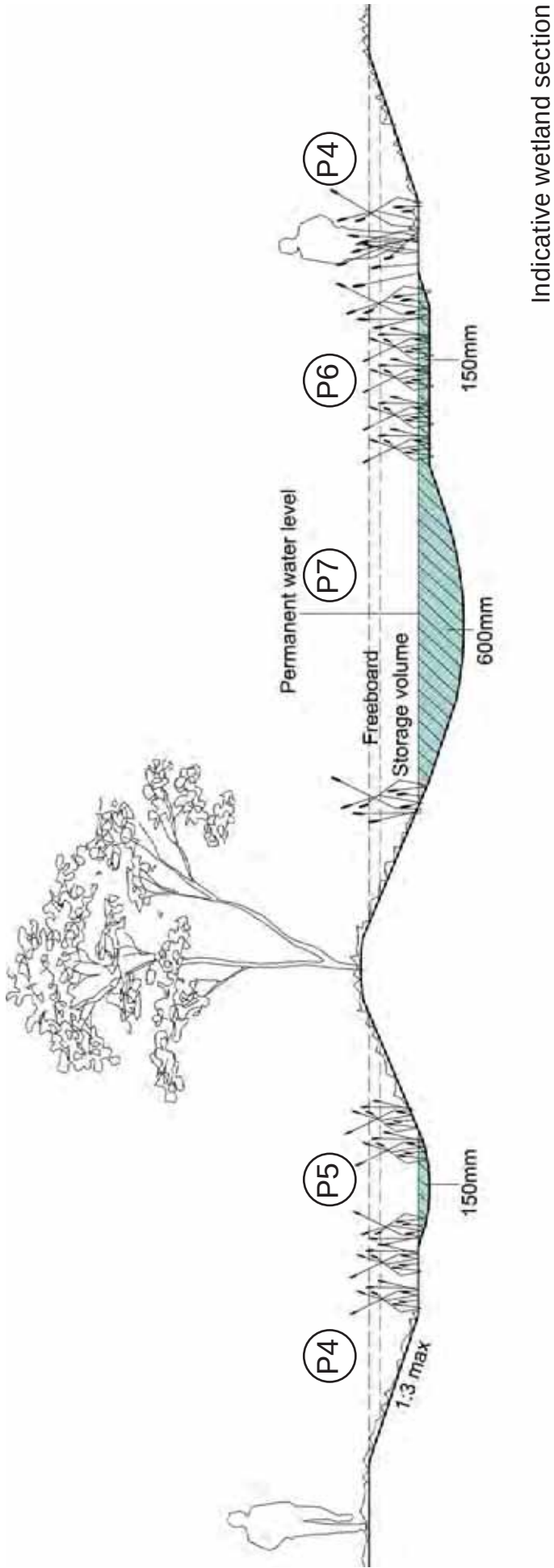
- Ceratophyllum demersum
Hydrocharis morsus-ranae

M4: Wildflower Grassland

Emorsgate Seeds EG8 Meadow Grass Mix for wetlands, 5g/m2

M5: Wildflower Grassland

Wildflowersuk.com Wet Soils (Wildflower & grass mix) mixture, Sow at 4kg per m2



Landscape Proposals - Ecology Statement

1. PROPOSALS

The landscape proposals to enhance the ecology and biodiversity of the site include:

Wetland

Creation of a wetland which will extend the existing small pond on site, and will create an enhanced habitat for native and migratory wildlife. TEP have confirmed that some vegetation from the existing pond can be translocated into the new wetland.

Meadow

Species rich native seed mixes offer a variety of habitats for invertebrates and other species, including mixes for dry meadow, wet meadow, woodland meadow and pond edge.

Hedgerow

The north west section of the existing hedgerow will be retained as it is. The central section will be thinned to open up views across the site and to open up space around the 400–500 year old oak tree. Some of the central section will be removed to allow the creation of the extended wetland, and the eastern section, after the natural break in the hedgerow, will be removed. TEP have confirmed that this removal can be mitigated by additional tree planting to provide a linkage to the hedgerow which will become part of the commuting route for bats. Woodland planting along the boundary of the site will also link the hedgerow to the central woodland and river corridor.

Tree Planting

New native and wildlife friendly non-native tree planting will offer habitat for local wildlife. Oak saplings from the site will be relocated into the meadow areas.

Ornamental Planting around Building

Bee and butterfly loving ornamental grasses and perennials will be planted to the entrance forecourt.

2. BREEAM

In order to achieve maximum BREEAM credits for ecology we are aiming to maximise the change in value of the site in the following ways:

- Planting 38 different species which are native or of known wildlife value, which differ to those to be retained on site.
- Ensuring that at least 70% of species are native or of known wildlife value.
- Including features which provide both shelter and foraging opportunities.
- Planting a large number of native trees and trees of known wildlife value.
- Providing 6 bat boxes and 6 bird boxes on existing mature trees.
- Pesticide use to be kept to a minimum.
- Good horticultural practice to be implemented, including using peat-free composts.

3. CURRENT SURVEYS BY TEP FOR WREXHAM COUNCIL, 2014

Reptile Survey

No reptiles were recorded during the course of the survey, despite some suitable habitat being present on site. A small number of common frogs and adult and juvenile toads were recorded.

MITIGATION:

- The existing pond should be retained or replaced for the amphibians identified on site.
- Prior to works commencing the grassland should be strimmed to a minimum height of 150mm.
- Any potentially suitable hibernacula on site should be demolished by hand between march and October, to ensure no disturbance to hibernating toads.
- In the unlikely event that reptiles are encountered during site clearance works, advice should be sought from a suitably qualified ecologist.

Otter Survey and Method Statement

During the survey a single spraint and a number of footprints were identified, both outside our site boundary. Most of the mitigation applies to works to the replacement of the culvert, the outfall, and general works to the banks of the river which are all outside of our site boundary.

MITIGATION:

- The contractor must agree a method statement with an ecologist prior to works commencing.
- External construction work restricted to daylight hours.
- Logs to be piled as potential habitat from any trees felled on site.
- A permanent otter proof fence must be constructed along the eastern boundary of the site.

Badger Survey

No badger activity was found on site. Three unknown mammal holes were identified and a badger hair, all outside our site boundary.

MITIGATION:

- Prior to works commencing, the vegetation on site must be strimmed to a height of 150mm under the supervision of an ecologist to ensure no badger signs were hidden or inaccessible during the original survey.

Landscape Proposals - Ecology Statement

Bat Activity Record

The site is used by a number of bat species for foraging and commuting, and the hedgerow within our site is used as a commuting line as part of a greater route. The field in the northern section, which is within our site, supports the lowest species assemblage of bats.

MITIGATION:

- Sensitive lighting schemes should be adopted near these features to avoid unnecessary light spill and the displacement of insect abundance which can negatively affect bat foraging habitat.
- TEP have confirmed that we are not proposing to take out any tree with potential to support roosting bats, so no further assessment of the trees is required.
- Provide bat boxes in existing trees.
- TEP have confirmed that the removal of part of the existing hedgerow is mitigated by additional tree planting to provide a linkage to the hedgerow. Any removal of existing hedgerow must be done before the end of February.

Arboricultural Impact Assessment 2014

One tree group (3 small sycamores) and a part of a further three tree groups (central hedgerow) are to be removed. They are low value with some trees within the groups dying or suppressed.

MITIGATION:

- We are planting a large number of native trees within the enhanced green space, new wetland, and around the new car parking.
- Tree planting will result in a net gain of long-term tree cover and quality.
- Temporary tree protection fencing will be put in place prior to the commencement of any development work.

4. PREVIOUS SURVEYS BY MARCHES ECOLOGY, 2012

Ecological Mitigation Strategy

- In accordance with the general mitigation measures, the physical works are being designed to avoid or minimise impacts on features of nature conservation importance. Compliance and site awareness will be ensured by the contractor through method statements retained on site.
- Up-to-date surveys have been undertaken to inform more detailed mitigation measures (see above).
- The existing hedgerow and small pond to be retained will be appropriately fenced prior to the start of the development.
- Potential impacts during the works will be avoided where possible outside March-August inclusively.
- We are proposing areas of broad-leaved woodland and wet woodland planting, hedgerow and tree planting, species rich wildflower grassland creation, as well as locations where existing vegetation is to be retained. This covers all the created and retained habitats suggested in the Compensation Measures/Enhancement section.
- Woodland planting along the boundary of the site will link the central woodland to the river corridor as recommended.

EIA Badger Annex

- No target notes are shown within our site boundary. Target Notes 5a and 6 are just on the edge of the boundary, one was an unspecified animal path and one was a discarded maize cob.
- No works associated with the proposed development (including physical construction works or habitat creation measures) are to be undertaken within 30m of the identified sett. The identified sett is over 250m from our site boundary.

Ecological Impact Assessment

- Much of the Mitigation Measures here are taken from the Ecological Mitigation Strategy.
- New habitat niches will be introduced where feasible to enhance the ecological resources of the development as recommended.
- The plant palette will utilise predominantly native and indigenous species as recommended.
- Suggested wildflower mixes will be used, or similar but equally appropriate.
- All trees, shrubs and seed-mixes should be as a minimum certified British native origin, and ideally locally native provenance.

Ecological Background Data Search

- The findings of the background data search have been developed and surveyed further by Marches Ecology and TEP.

Detail Design

Building Form, Height and Massing

The building takes the basic form of two almost parallel office floor plates angled either side a central atrium. Each floor plate is approximately 18m long and 18m wide. The floor to floor heights are approximately 4.9m and the atrium height is approximately 11m. The building is a symmetrical design with a central entrance and two long wings extending from it. The building is a symmetrical design with a central entrance and two long wings extending from it.

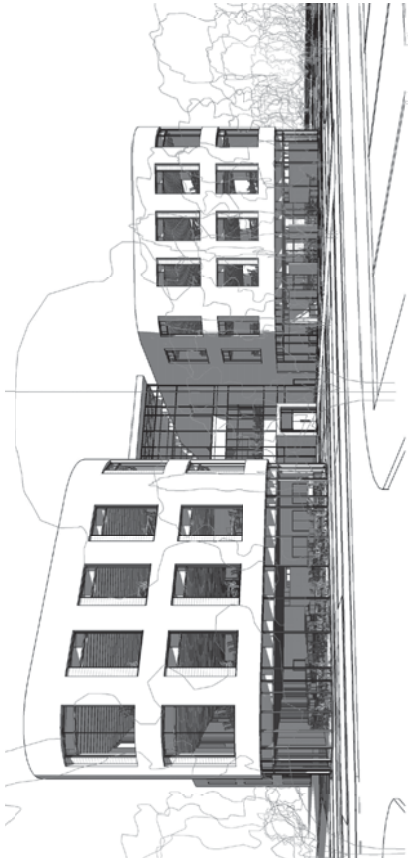
As the building is a symmetrical design, the wings have been manipulated to take on an organic appearance by cranking the floor plates, chamfering the ends and creating a sense of movement.

The atrium fills the void between the wings and has predominantly glazed facades at the ends. The wings are set in a 'U' shape, with the ends of the wings connecting to the atrium.

The building is a symmetrical design with a central entrance and two long wings extending from it. The building is a symmetrical design with a central entrance and two long wings extending from it.



ina Design



ie t Entrance



ie m Rea

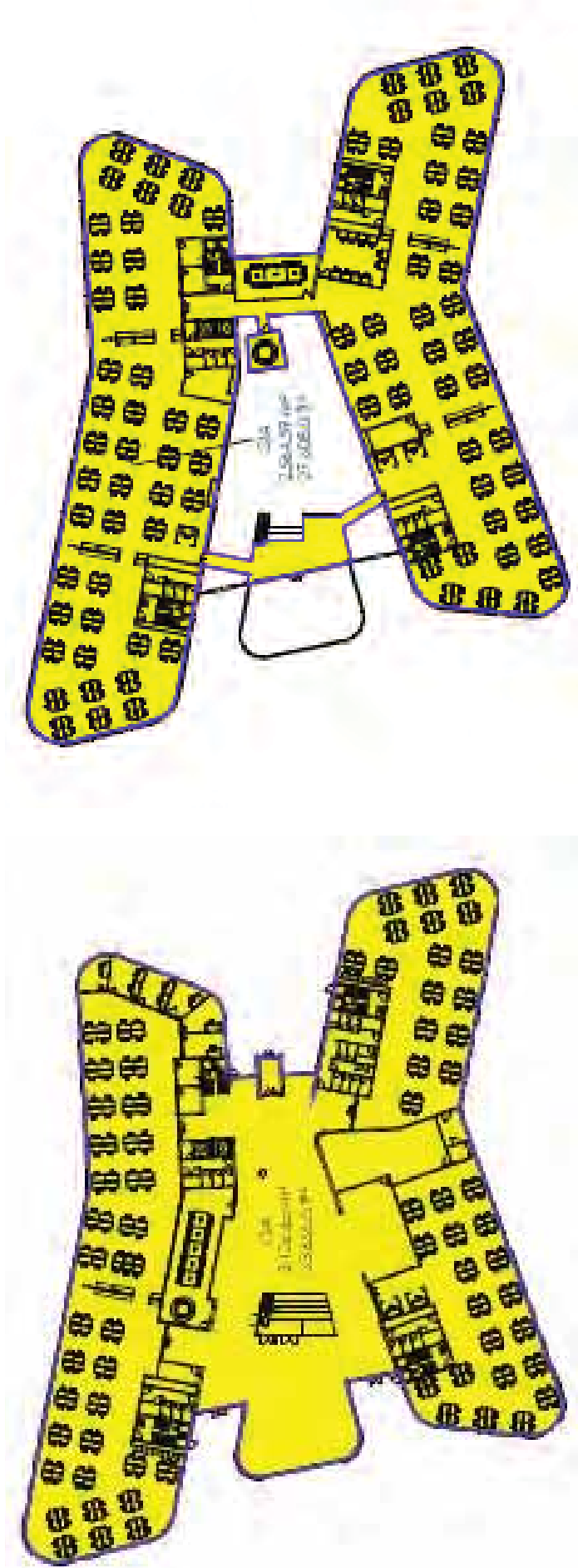
Quantum

The design is as 100,000 sq ft, as a result of the design of the site, the site is 8166m² (87,899 sqft).

The overall site is 4.298 Hectares (10.62 Acres)

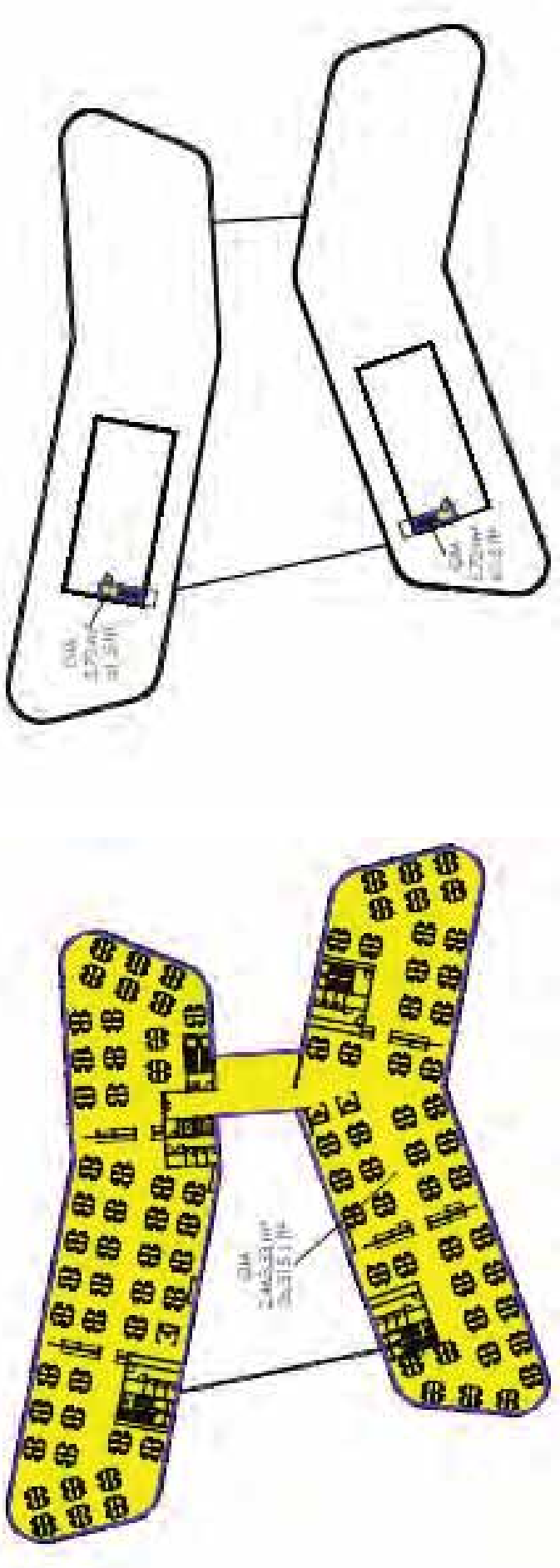
425 car parking spaces are provided (including 24 accessible spaces) and secured covered cycle stands for 32 staff bicycles. 4 external cycle stands

8 siting areas are provided near the main entrance



nd Pan

ist Pan



Sec nd Pan

R Pan

Gross Internal Floor Area

The GIA has been calculated on the basis of these diagrams.

Ground	: 3,126.66m ² (33,655ft ²)
First	: 2,564.59m ² (27,605ft ²)
Second	: 2,463.33m ² (26,515ft ²)
Roof	: 11.44m ² (123ft ²)
Total	: 8,166m ² (87,899ft ²)

External Appearance

The design team's design approach and strategy for the building's external appearance is a key design statement and as a result, a number of design decisions have been made. We believe that the building's external appearance is a key design statement and as a result, a number of design decisions have been made. We believe that the building's external appearance is a key design statement and as a result, a number of design decisions have been made.

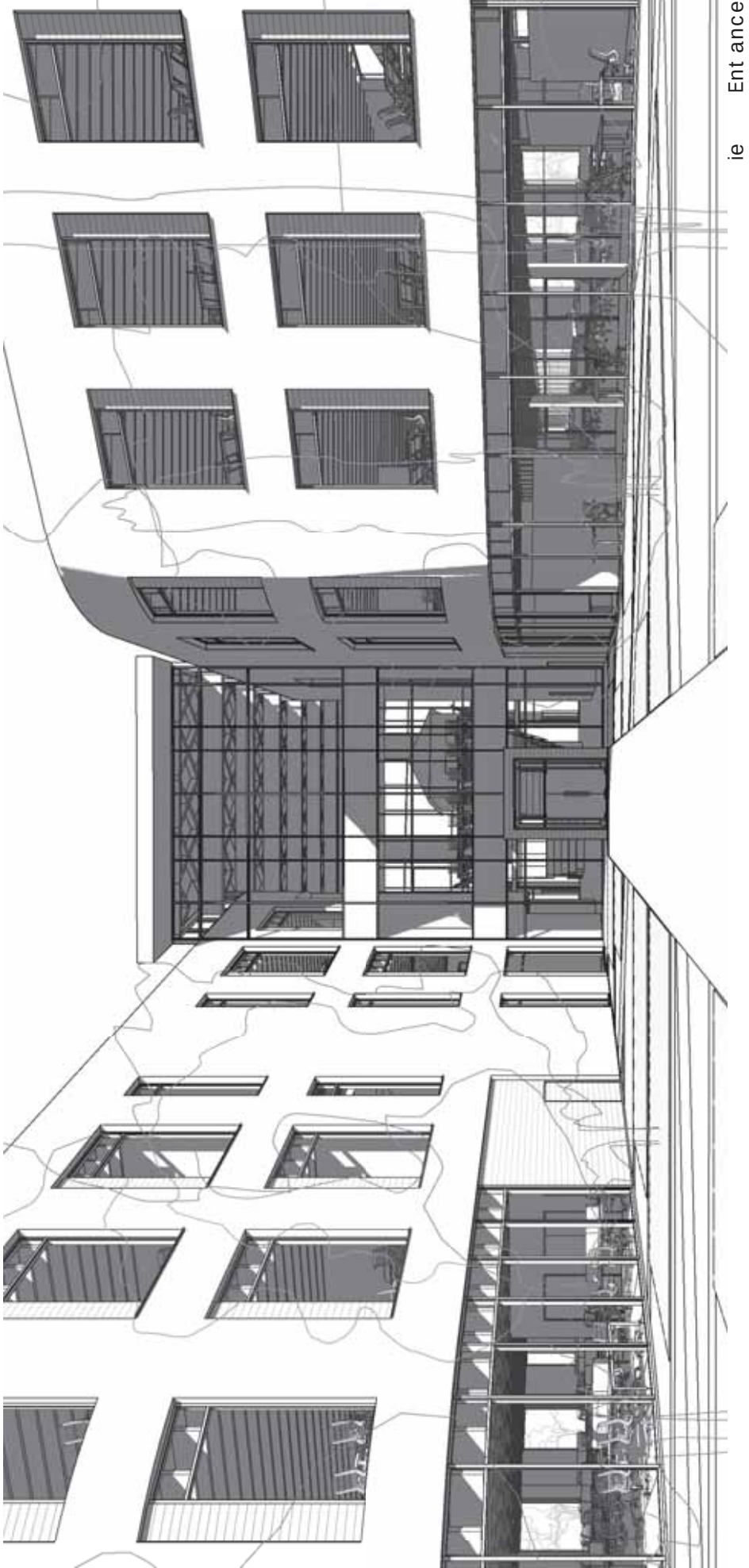
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Side



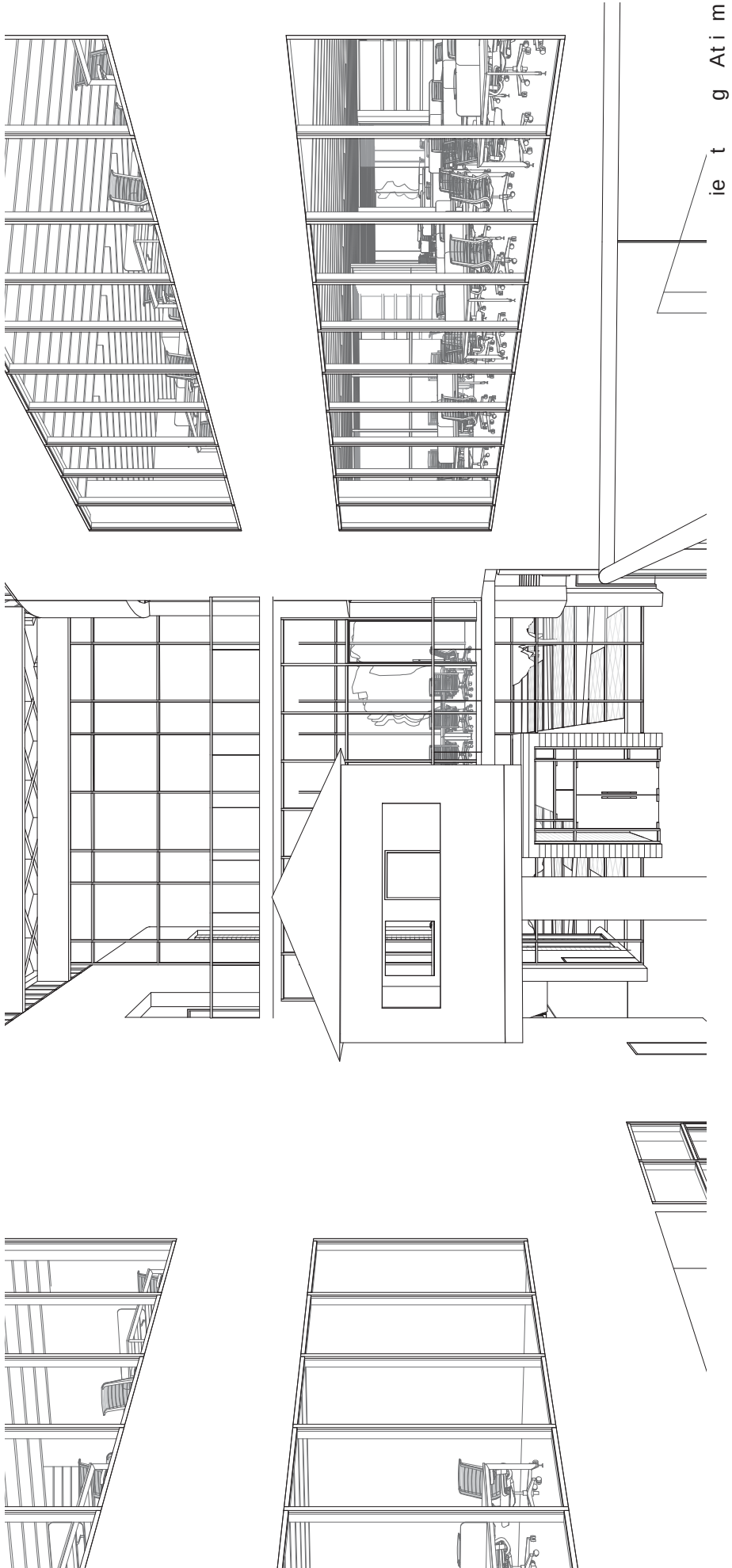
Entrance Area

The aim of the landscape design is to celebrate the existing natural characteristics of the site and create a strong relationship between the building and its setting. This will give the building a feeling of belonging, giving rise to a strong sense of place.

The landscape design around the entrance is more formal and involved which contributes to the feeling of arrival. Paths cut through planted area and converge towards the entrance which is positioned centrally within the glazed facade of the end of the atrium

The curved chamfered form of the end of the wings emphasises this movement towards the entrance and provides a legibility to first time visitors. The ground floor continuous glazing to the ends of the ends of both wings provides a welcoming environment on approach.

ie Entrance



Safety and Security

W ist t e e is n stat t e i e m e n t t a c i e e S e c e d D e s i g n
a c c e d i t a t i n t e s e d d e s i g n i d i n g a s e e n c a e
c n s i d e d i n t e m s s i t e a t i n t e n a g a n i s a t i n a n d i d i n g
e n v e l o p e s u c h t h a t i t w i l l b e n e f i t f r o m g o o d n a t u r a l s u r v e i l l a n c e , i t w i l l
i d e s a e a c c e s s t t e i c a n d i a t e s a c e s a i d i n g a c e s
c n c e a m e n t a n d i i d e a s e c e a n d s t d e e m e n t

- i e i n c d e d t c e t e i n g a e a s
- A e t e n a d s a n d e n t a n c e s t t e i d i n g

D Access

e n t d i e c n t e d e a c c e s s s t a A n i s i t s i
a e t a i t i n t e e n t a n c e n t i e n g e t t i n g i n

Sec it Ba ie

Security barriers will remain up during normal office hours (9am to 5pm.)

nt de A a m

A n e i n t d e a a m s s t e m i e i n s t a e d

Disa ed Re ge A a m

Disabled refuge alarm will be provided as required by the building fire
stateg

Disa ed iet A a m S stem

A d i s a e d t i e t a a m s s t e m i e i d e d i t c a i n d i c a t i n a n d
a a m a n d e m t e i n d i c a t i n a n d a a m a t e c e t i n

S staining and BREEA Statement

The logo for CUNDALL, featuring the word "CUNDALL" in a bold, blue, sans-serif font.

The building is being assessed under the BREEAM 2011 v2 Offices scheme. A preliminary BREEA assessment as undertaken and the design team is committed to getting a good rating in its commitment to the WELL Building Standard.

Relevant ended e-assessment details credits achieved

Renewables

A Low and Zero Carbon (LZC) feasibility report has been undertaken by Cundall to assess the most viable method of reducing CO2 emissions. Each LZC technology was considered based upon a wide range of criteria which included energy generated, payback periods, land use considerations and life cycle impact.

From the assessment three technologies were identified as being feasible for use on the development and each will be reviewed in more detail as the design progresses :

- Variable refrigerant flow (VRF) air source heat pumps
- Photovoltaic panels
- Ground source heat pumps

VRF Air Source Heat Pumps

VRF systems may be installed to provide comfort cooling (and space heating) to areas of particularly high heat gain such as meeting rooms and IT server rooms. The use of DX systems to serve air handling plant heating and cooling coils will also be reviewed. VRF systems have seasonal efficiencies as high as 4.0, which would serve to reduce the buildings annual CO2 emissions.

Photovoltaic Panels

PV panels could potentially satisfy up to 10% of the development's annual electricity requirements whilst reducing the buildings carbon emissions. Panels mounted on a frame and angled so that they are south facing would be installed on the roof of the building.

Ground Source Heat Pumps

The use of GSHP's to serve the atrium underfloor heating system will be reviewed further. The proposal would be to install horizontal collectors under the landscaping at the rear of the building, which would connect into a secondary underfloor heating circuit. Although the area heated would be relatively small, a GSHP system would offer reductions in the buildings overall annual CO2 emissions.

In addition to LZC technologies the design will be developed to incorporate energy efficiency measures through the design of services and improved fabric performance. This shall include the use of energy efficient lighting, heat recovery devices on air handling plant and high performance glazing.

Access Statement

Accessibility

Stain e catin

At the site is the elementary We am it is it in the
centre and a immediate 1 mile from the main station
adjacent hospital is well served by the local bus services.

Designated the main entrance to the site, the entrance is located on the north side of the site, adjacent to the main road. The entrance is a wide, paved area with a concrete curb and a small, landscaped area with grass and shrubs. The entrance is marked by a sign on the left side of the road, which reads "Main Entrance". The entrance is a straight path leading to the main building, which is a large, rectangular structure with a flat roof and a series of windows. The entrance is a straight path leading to the main building, which is a large, rectangular structure with a flat roof and a series of windows.

The main entrance is easily identifiable through the building and landscape design elements and access



Site an

Inclusive Access

idance Pinci es

- ne enn i ad t ana ac t at i inc ate meas est acitate access and se a e e i and m e a nd t e d e ment inc ding disa ed e e it m it sens and c gniti e im ai ments nc si e access i e enc aged ens ing t at
- e d e ment is a e t e accessed a tentia isit s ega d ess age gende an disa ities ic t e mig t a e e e te na en i nment inc ding t e cati n and ientati n t e ent ance i e egi e and n tact as an im ediment t an tentia ses
- e inte na iding en i nments can es ccess and sa e sed a tentia ses t e nits
- W e e ssi e t nities i eta ent tise c s mate ias te t es and t e treatment s acet assist in t e egi iit and aest etic a e t e d e e ment and t im e design standa ds e a

ic ati n and Ent ances

e ent ance i c m ise s ing d s it a minim m cea idt 1.200mm ic ead direct t e t i e a sing e int ent all building visitors. The main entrance is clearly identified.

A delivery door and adjacent lay-by are located on the South side of the iding

Eme genc E it i e D s

A eat es and mate ias a e t c m it Pat B t e B iding Regulations. Fire doors at various locations will be fitted with large panic as it s d nt en signs n additi n t e iding tenants will need to consider a plan for evacuation of people using each office inc ding t e e a ati n a es na e g ess eme genc an

i e d s a e een designed t ide a minim m 8 0mm cea idt opening and have level means of escape. The glazing and framing system will be as specified above. Service and fire exit doors will be steel with PPC finish.

Internal Circulation; Horizontal

Movement between the ground floor and the upper floors will be provided ia t 1 n es n its and acc mm dati n stai cases

The passenger lift cars exceed the recommended car size and detailed specifications in AD M (2004), BS-EN 81-70 with a generous circulation space in front of the lift doors. Lighting and finishes on the stairs and within the lift cars and lobbies will be non reflective to assist people with visual im ai ments

e d e ment i a e a main stai and a se a ate eme genc escape stair. Disabled refugees (900x1400mm in size) shall be provided to first and second floors within the office development and escape /

eme genc stai cases cated cea an esca e tes A Disa ed Re ge Eme genc ice mm nicati n S stem s a e ided in accordance with BS 5839 Part 9, with each refuge shall be provided with a call station linked back to a multi zone central control station located in the main reception area at ground floor level.

e stai cases s a e am ant cite ia designed t satis e iement t c i c ati n and eme genc esca e ses e stai s a a e is a c nt asting n singst t e ise and g ing eac stai t e ad Handrails shall contrast visually with their backgrounds, are slip resistant and te minate it t is c t ing eing ca g t nte na i c ati n etica

ain c id s a e t ac ie e a minim m 1200mm cea te it 1800x1800mm passing places as required. All doors are to be fitted with i nm nge c nt asting in te ms c and minance A d s n c id s and gi ing access t ms and s aces i e c m iant it g idance in A ed D c ment Pat 201

All fire doors and toilet doors that are required to remain closed for privacy, acoustics or energy control reasons, are to be fitted with adjustable or cam-action self closing devices, set to lowest resistance level and fitted it icti n atc es as e ied t ac ie e a ma im ening force at leading edge in accordance with latest Building Regulations / BSI g idance

Sanita Acc mm dati n

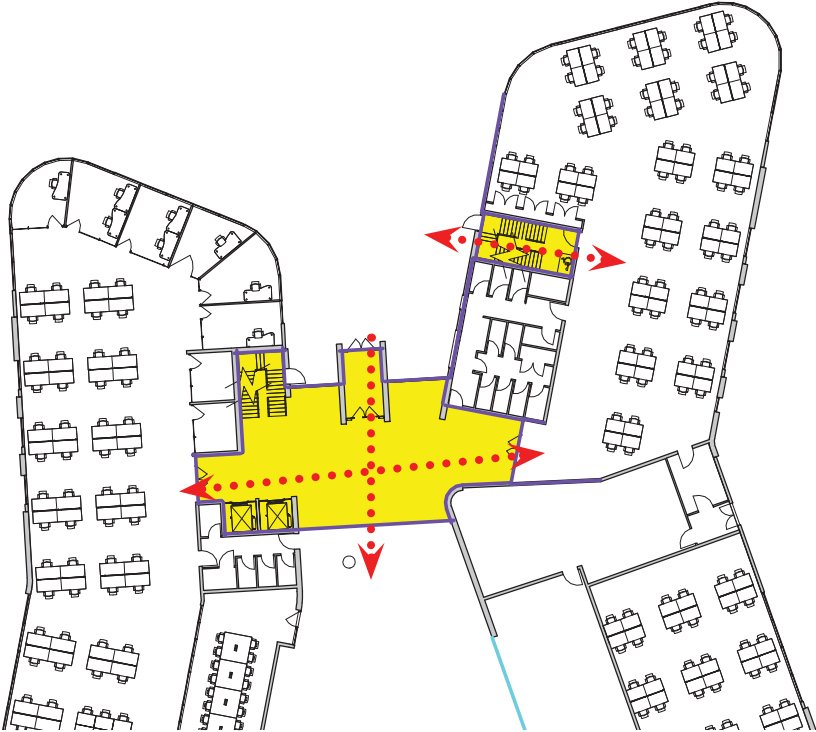
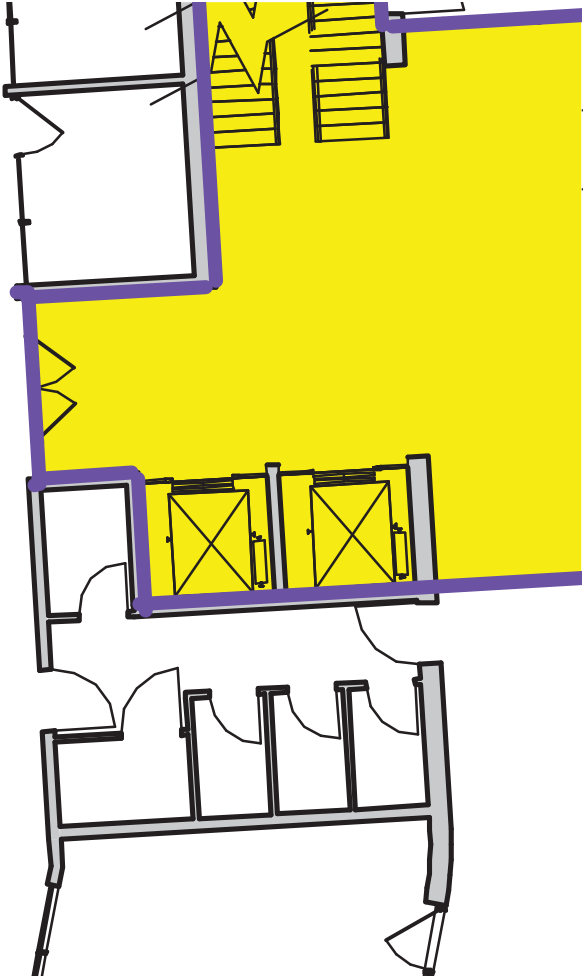
e d e ment i a e an accessi e W at it eac c e a ng it se a ate mae and ema e W s es ace a t and isi n t i ets meet t e e iements A ed D c ment Pat 201 t e Building Regulations and BS 8300:2009 + A1: 2010. The toilets shall generally inc de

- ig tacti n i ac ts
- Lever action fittings where possible
- t a d ening d s
- Sanitary fittings that contrast visually with the wall / floor finishes (which s a as c nt ast it ne an t e

P c ds eme genc a a m s stems it in t e accessi et i ets i e provided in accordance with paragraph 5.4h and 5.10 of Approved Document Part M (2013) and shall comply with paragraph 4.30e. Flushing mec anisms s a e cated n t e t anse side t e accessi e W s

Signage and mm nicati n

Building signage can also be located adjacent to the entrance to assist with way finding while also providing a corporate identity. All signage i e designed it e enc t c ent g d active g idance and i m at an integ ated c mm nicati n s c emet at gi es cea di ecti ns in mati n and inst cti ns t e se t e iding



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Design Statement and Statement on Landscape Assessment



Drainage Statement

Existing Drainage

The Welsh Water public sewer records indicate the nearest existing sewers lie within Pendinas in the housing development approximately 40m south of the site boundary. These sewers include a 150mm dia. foul water sewer and a 225mm surface water sewer. Both of these sewers head southeast before crossing Croesnewydd Road and continuing in an easterly direction though the adjacent residential developments. The surface water ultimately discharges into the River Gwenfro and the foul sewer continues east until it passes beyond the extents of the sewer map.

A 150mm diameter foul sewer lies approximately 150m east of the site boundary, on the opposite side of the River Gwenfro within Croesnewydd Road. This drains from the north and turns at the closest point to the site boundary before draining in a south easterly direction.

A 600mm combined sewer passes in a south easterly direction approximately 150m to the west of the site boundary.

An unnamed brook (a tributary to the River Gwenfro) appears to originate 40m to the west of the site. This passes through a culvert beneath Croesnewydd Road in an easterly direction before joining the River Gwenfro.

The River Gwenfro passes by the north east of the site, 40m away at its closest. This also passes through a culvert beneath Croesnewydd Road and heads east before being joined by the tributary.

A seasonal pond is located within the site boundary in the west of the site. This corresponds with a low lying area.

Proposed Drainage General

It is proposed that a separate foul and surface water drainage system will be constructed to remove flows from the site. The foul system will connect into a foul sewer proposed to be constructed by the local authority to the north of the site. This sewer is being constructed to serve the site and surrounding development areas. Surface water will be collected by a combination of a traditional drainage system and stone filled carrier trenches, before discharging into a pond/wetland area covering the west portion of the site.

All new drainage for the re-development will be designed and installed in accordance with the following British standards, codes of practice and building control documents.

- BS EN 752 – Drain and Sewer Systems Outside Buildings

Moneyppenny

Moneyppenny, Wrexham

Drainage Statement

Job No:	1009579
Doc No:	1009579-RPT-00015
Latest Revision:	-
Date:	5/09/2014

- BS EN 12056 – Gravity Drainage Systems Inside Buildings
- Building Regulations Part H – Drainage and waste disposal
- BRE Digest 365 – Soakaway Design
- CIRIA C697 – The SUDS Manual

The new drainage pipelines will be constructed from a combination of HDPE, clay and concrete.

Manhole construction associated with the drainage network will be constructed from HDPE pre-formed inspection chambers, engineering brickwork or pre-cast concrete sections, depending on the depth and size of the chamber.

Main pipe routes will be positioned with consideration of the buildings internal drainage, road, and footpath layout, and will take into account existing and proposed services. A CCTV survey of the drainage should be carried out on completion of the works.

Proposed Surface Water Drainage

Surface water from the proposed roof and hardstanding areas will be collected via a combination of traditional piped drainage systems and stone filled carrier trenches. These will outlet to a low lying pond/swale area to the west of the proposed building. Recent infiltration testing has identified that permeability rates are low, however they are within the range of useable infiltration rates and should allow water to discharge into the ground over a large area. The proposal is to control and discharge all surface water within the site (with the potential for an overflow into the un-named brook only if there is no means to control the water entirely on site). The surface water drainage system will be designed to prevent flooding (except in the pond/swale area) in a 1 in 30 year return period event. Any flooding occurring during larger storm events, up to and including a 1 in 100 year return period event (including climate change) will be controlled on site. The pond/wetland area will be surrounded by a landscape area to store water in the most extreme rainfall events, with safe access maintained to buildings at all times.

Proposed Foul Water Drainage

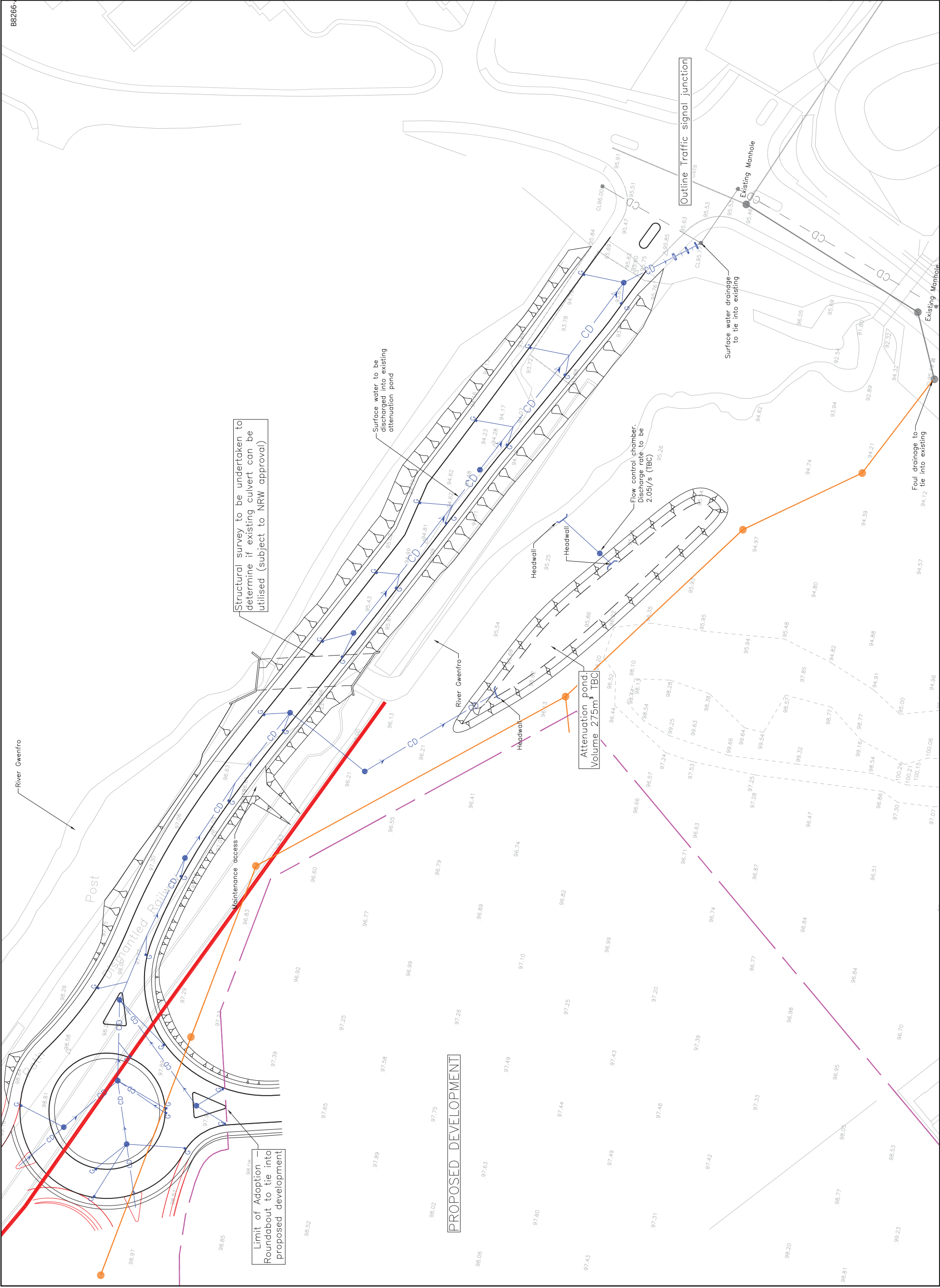
The proposed external foul water system will discharge via gravity into a new foul sewer being constructed to the north east of the site. The proposed foul sewer is being constructed to serve the surrounding development area, including our site. A manhole and connection will be provided to this sewer adjacent the north east corner of the site.

This new sewer discharges to the east where it connects into an existing stub from a foul sewer within Croesnewydd Road.

Phasing of drainage works

The existing site is undeveloped resulting in minimal existing constraints for the phasing of the drainage construction. Constraints to consider should include the position of site compounds, circulation routes and temporary storage areas.

Our proposals comply with the comments within the Flood Consequence Assessment produced by Atkins concerning the surrounding development area (Document Ref. 5088067/FRA/002).



B8266-1

WREXHAM-001_Design and Access Statement

1. This drawing should only be read in relation to the subject of the title. Other information shown on this drawing is for information only. Reference should be made to appropriate drawing series for other information.

2. All dimensions are in millimetres unless specified otherwise.

3. Do not scale from this drawing.

KEY

- Stormwater carrier drain
- Stormwater gully
- Stormwater catchpit
- Petrol interceptor
- Existing storm water carrier drain
- Foul drainage
- Foul Manhole
- Existing foul
- Existing Welsh Government Drainage
- Proposed development land boundary

Rev.	Chkd.	Apprv.	Date	Description
1	JW	SC	27/06/14	
A	MRD	SC	31/07/14	DRAFT FOR COMMENT
B	JW	MRD	05/08/14	FOR PLANNING
C	MRD	MRD	07/08/14	FOR PLANNING
D	MRD	SC	08/08/14	FOR PLANNING

FOUL AND STORM WATER DRAINAGE LAYOUT



tel 01244 311855 fax 01244 314550 chester@ramboll.co.uk www.ramboll.co.uk

WREXHAM WESTERN GATEWAY



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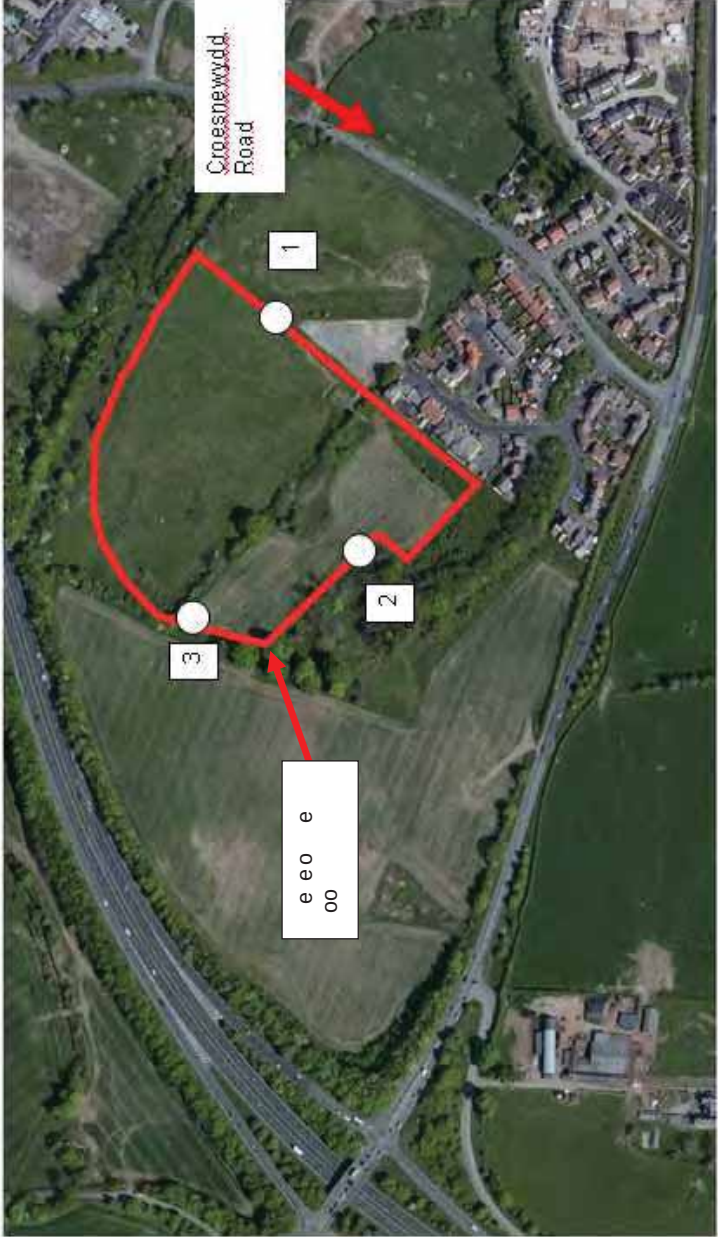
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Summary Statement Environmental Assessment Report





Western Gateway, Wrexham Geo Assessment Report Summary

Site Name: Western Gateway, Wrexham

Report Title: Geo-Environmental Assessment Report

Report Number:LC/C2580/4632

The report describes a Geo-Environmental Assessment carried out by Brownfield Solutions Limited (BSL) on behalf of Cundall on the above mentioned site. The Appendices include the various laboratory test results that have been carried out and summary of the report is as below;

Soil Contamination:

No elevated contaminants recorded in the soils tested when compared to commercial screening levels.

Groundwater Contamination:

It is anticipated that the groundwater will not be contaminated as no significant sources of contamination have been identified and no contaminated have been detected.

Ground Gases:

No methane has been detected and low concentrations of carbon dioxide have been recorded.

Remediation:

No specific remedial measures are deemed necessary. A watching brief is recommended during future ground works for any previously unseen contamination.

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