

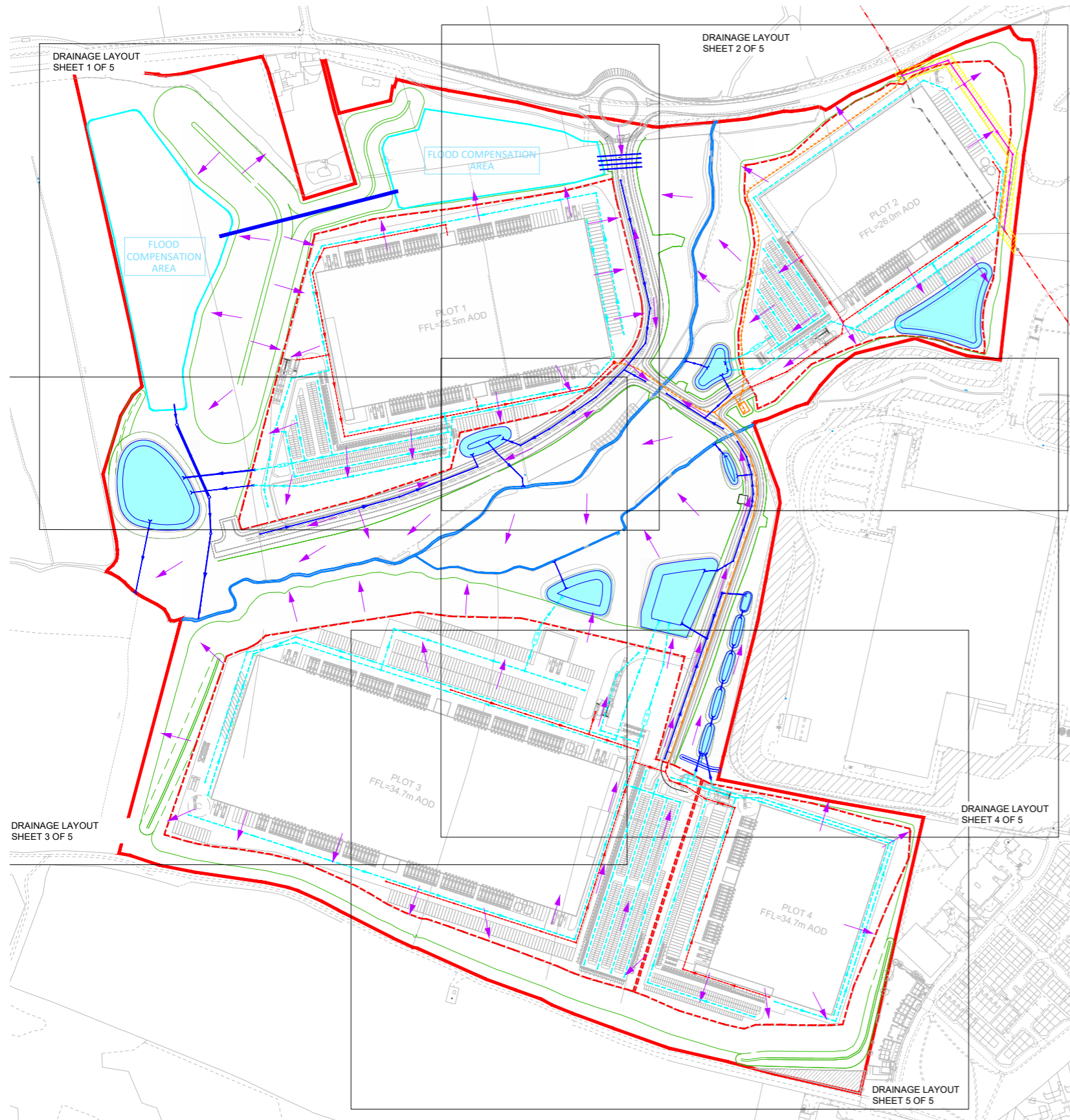
06 DEVELOPMENT PROPOSALS

06.4 BLUE INFRASTRUCTURE PROPOSAL

The blue infrastructure strategy has been designed to provide a cohesive scheme that benefits from a functional, sustainable and attractive blue network.

- Reduced energy consumption through the utilisation of a sustainable drainage system
- Attractive spaces throughout the site enhancing the experience of the user.
- Creation of additional habitats
- Mitigation of standing surface water to road and footways.

Overall the proposed blue infrastructure will be an important feature of the development, working together with the green infrastructure in order to create an environment that benefits human health and ecosystems alike.



Key	
	PLANNING APPLICATION BOUNDARY
	DEVELOPMENT PLOT BOUNDARY
	PROPOSED INFRASTRUCTURE SURFACE WATER
	PROPOSED INFRASTRUCTURE FOUL SEWER
	PROPOSED FOUL SEWER RISING MAIN
	INDICATIVE ON-PLOT SURFACE WATER
	INDICATIVE ON-PLOT FOUL SEWER
	INDICATIVE ON-PLOT OIL INTERCEPTOR
	PROPOSED PRIVATE SURFACE WATER ATTENUATION
	PROPOSED YW PUBLIC SEWER DIVERSION
	EXISTING YW PUBLIC COMBINED SEWER TO REMAIN
	SURFACE WATER EXCEEDANCE ROUTE
	EXISTING YW PUBLIC COMBINED SEWER TO BE REMOVED
	6m YW PUBLIC SEWER EASEMENT
	PROPOSED INFRASTRUCTURE FILTER DRAIN

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06.5 CONNECTIVITY

Being located directly adjacent to the A635 with links to the M1 and A1(M), the site is ideally suited for the distribution and logistics sector with strategic links to the north and midlands.

The strategic infrastructure already exists and having modelled the impact of the development on the local highway network, suitable measures will be incorporated to accommodate the increase in traffic from the development.



Existing Site Connectivity

There is currently no primary highway access into the site other than a gated farm entrance which enter the site on the Northern boundary from the A635. There is a new roundabout currently under construction providing direct access to the site from the A635.



Connectivity Strategy

The proposed site entry point will be via a new arm from the new A635 roundabout to the North of the site which will run Southwards through the site connecting the proposed development plots.



Sketch Proposal

The internal estate road network will form part of the detailed application and will be designed to adoptable standards, but will remain private highways.

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Connectivity on Site

06.6 CONNECTIVITY PROPOSAL

The proposals include a range of sustainability measures which will significantly improve non-motorised links to this site for staff and visitors. The proposals create improved linkages from the A635, and from the surrounding context.

These sustainability measures include:

- As part of the proposed vehicle access onto the A635, a new toucan crossing facility would be provided. This would significantly improve the existing walking and cycling connectivity of the surrounding context with the site by offering safe access to the site from the Billingley Green Lane Bus Stop;
- A new, illuminated, combined footway / cycleway from the North end of the Proposed Development, Southwards to connect to the proposed development plots and from the West from Carr Field Lane;
- Secure, sheltered cycle facilities on the site together with shower, locker and changing facilities for staff / visitors;
- Electric bike charging stations;
- Car parking to have electric charging with 5% active and 20% passive;
- Strong travel planning to include various measures including car sharing schemes, preferential car parking spaces, travel vouchers etc.

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06.7 ILLUSTRATIVE MASTERPLAN

Illustrative material is provided with the application which shows how the development could be brought forward within the parameters established through the outline element of the application. This includes an illustrative masterplan which demonstrates a potential configuration of buildings within the development plots, whilst reflecting the strong green buffer to the periphery of the development (as explained in the preceding section of this Design and Access Statement).

This section of the Design and Access Statement sets out the design rationale behind the illustrative material provided with the application. It also aims to establish a framework for future reserved matters applications.

Design and Approach

The Illustrative Masterplan shows how the site could be brought forward for a number of units of varying sizes and has evolved throughout the preparation of the application.

Within the site, the masterplan shows landscape treatment along the proposed centralised estate road, which provides a softer edge to the development plots. This helps the siting of buildings generally, as the built form is set back from the main highway routes.

Some key views and visual interest will be created along the spine roads within the development. Landscape fringes along the roads are used to soften edges to car parking and building facades, which can be further enhanced.

In terms of existing topography, the levels generally slope down from the Southern boundary towards Carr Dike. There are also slopes from the Northern boundary sloping down toward Carr Dike.

In order to tie in with the existing levels and respect the existing constraints including retained below ground water main easement, 3x separate development plateaus are proposed, with the largest plot located to the South side of the site.

The privately secure service yards to each of the units are to be directed into the centre of the development where possible and shielded from view. The service yards are set out to provide sufficient depth to accommodate the full turning circle of a HGV within the parking and circulation zones while allowing vehicles to carry on loading at the adjacent loading doors.

Logistics and Industrial Requirements

The illustrative masterplan achieves up to 204,000m² of B2/B8 floor space with associated ancillary B1 office floorspace across the development. It can accommodate a range of unit sizes from circa 32,052m² up to 78,038m². The unit size variation offers optimum commercial flexibility.

Service yards shown on the masterplan are security controlled and indicate a minimum of 40m depth, which is appropriate to the circulation and manoeuvring space required for modern heavy goods vehicles. There is also facility within the masterplan design to support emergency fire appliance access around the buildings, which will be required under the Building Regulations.

The illustrative masterplan has evolved considerably from first principles and the layout plan represents the final version presented as part of this application. The masterplan has incorporated a series of detailed inputs and considerations which arose during the design process, as follows:

- Plots for buildings, private service yards, semi-private car parking areas and public access are clearly defined on the illustrative masterplan. Generate buildings and external spaces which are marketable for contemporary B2 and B8 occupiers.
- Each unit provides significant ancillary operational office blocks. These offer a strong datum point to signify the entrance to each Unit within the development
- All units provide a minimum of 40m deep secure service yard areas to accommodate effective HGV circulation and all have individual gatehouse control to the access. All units incorporate both dock leveller and level access doors addressing the service yard, for the loading and unloading of goods to the warehouses
- A cohesive scheme of on-plot landscaping which integrates with the perimeter landscaping and green and blue infrastructure
- Tree planting along both sides of the spine road in order to soften the impact of the HGV route and provide visual interest.
- A clear hierarchy for vehicular, cycle and pedestrian routes into and around the site.

- Connections are provided to the principal entrances to all the Units within the development, and opportunities for direct connections into the wider perimeter landscaping and green infrastructure are maximised

Existing Site Levels

The landform of the central part and Eastern/Western part of the site is relatively flat at approximately 25 metres AOD. There is a change in level to the North of the site leading up to road level in line with the A635 which stands at approximately 26 - 32 metres AOD. To the South of the site the land levels change to approximately 33 - 44 metres AOD leading up to the public footpath. Detailed analysis of the site levels has been done to design plateaus to screen future development and minimise visual impact to the surrounding context

Based on the published geology, historical use of the site, and subject to the findings of a detailed intrusive site investigation; no geotechnical or geoenvironmental barrier to undertaking the proposed earthworks exercise is anticipated.

Proposed Plateau Levels

The proposed cut and fill has been based on a rationale to lower the proposed finished floor levels across the site in order to lower the ultimate ridge height of buildings and reduce visual impact. Earthworks arisings from the site will be employed to form the landscape & ecology zone to the north and west proposed site.

Conclusions

The earthworks assessments have confirmed that a theoretical earthworks balance can be achieved on site whilst enabling site highway levels that are appropriate for means of vehicle and pedestrian access.

Appropriate means of disposing of both storm and foul water are available through the on-site infrastructure.

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06.8 GOLDTHORPE MASTERPLAN FRAMEWORK COMPLIANCE

Design Elements	Goldthorpe Masterplan Framework	Proposed Development	Compliance	Comments
Use	General employment Space	Use Class B2 (30%) & B8 (70%)	✓	Amount of B2 limited to reduce peak hour highways impacts.
Area	72.9 Ha	85.32 Ha	✓	Increased area for additional landscaping & flood compensation areas.
Floorspace	Around 204,000 sqm	Up to 204,000m ²	✓	
Siting	4 development platforms	4 development plots created on 3 plateau area	✓	In general accordance with the Masterplan Framework.
Heights	Buildings should not exceed 15m to the highest point where the footprint is 20,000sqm or less and should not exceed 18m to the highest point where footprints are over 20,000sqm.	Plot 1 - 568,500ft ² /52,815m ² Plot 2 - 370,000ft ² /34,374m ² Plot 3 - 840,000ft ² /78,038m ² Plot 4 - 345,000ft ² /32,052m ²	✓	Height reduced to a maximum of 18m for all buildings given pre-app discussions but the market signals suggests provision should be made for higher buildings.
Appearance	Grey and blue cladding considered.	See Illustrative Building Elevations	✓	
Access	Provide appropriate access to housing site reference HS51 from Billingley View	Land has been safeguarded.	✓	
Connectivity	Incorporate the existing PROW into design	Retention of PROW and introduction of additional cycle and pedestrian routes which connect into Goldthorpe Town and Bolton on Dearne.	✓	Enhancement of these routes will be considered in the context of becoming sustainable, active travel links to support the development of the Travel Plan.
Landscape	Retain the existing woodland and hedgerows on the site periphery & hedgerow in the north-west corner of the site.	These areas of vegetation will be protected where possible.	✓	These elements will help integrate the development into the surrounding area in landscape and ecological terms.
Green Infrastructure	Retention of Carr Dike and creation of a habitat corridor (at least 8m in width).	Carr Dike retained and deliver a corridor width of between 50 - 80m.	✓	This element will exceed the guidance and habitat enhancement to this corridor will be recommended by our ecologist.
Biodiversity Net Gain	Achieve at least 10% BNG	Achieve minimum 10% BNG through on and off-site provision.	✓	
Flood Risk	Avoid locating any built development in Flood zones 2 and 3	Plot 1 proposes an extended development platform in the flood zone 3 to the north.	✗	Areas of flood compensation to be provided as part of the development - refer to Section 6.13.
Sustainability	Consideration to be given to Sustainability standards.	Minimum of BREEAM 'Excellent'.	✓	Exceeds adopted planning policy requirements.

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06.9 NATIONAL DESIGN GUIDE COMPLIANCE

The National Design Guide sets out a series of key characteristics which address the question of how we recognise a well-designed place. The document outlines the government's priorities which should be considered when designing new places.



Characteristic	Key Point	Compliance	Comments
Context	<ul style="list-style-type: none"> C1 Understand and relate well to the site, its local and wider context C2 Value heritage, local history and culture 	✓	The proposed scheme responds positively to the surrounding context through the careful consideration of levels, building form, materiality, and ecology to minimise the impact on both the local and wider context.
Identity	<ul style="list-style-type: none"> I1 Respond to existing local character and identity I2 Well-designed, high quality and attractive places and buildings I3 Create character and identity 	✓	Consideration has been made to the surrounding buildings including Adli Goldthorpe RDC, Goldthorpe Industrial Estate and the nearby residential properties, to ensure the proposal fits coherently with the local character and context.
Built Form	<ul style="list-style-type: none"> B1 Compact form of development B2 Appropriate building types and forms B3 Destinations 	✓	The form of each of the proposed plots is based upon having an 18m ridge height to minimise visual impact on the surrounding context. The building type is suitable for the proposed location, in line with the Goldthorpe Masterplan Framework document, and being in close proximity to the existing Goldthorpe Industrial Estate.
Movement	<ul style="list-style-type: none"> M1 A connected network of routes for all modes of transport M2 Active Travel M3 Well-considered parking, servicing and utilities infrastructure for all users 	✓	The proposed scheme will utilise the newly proposed roundabout connection providing direct access from the A635 and an increased level of pedestrianisation, providing safer access to the site from the Billingsley Green Lane Bus Stops. The site will provide wide roads and footpaths to provide safe access around the site. The proposal also includes the inclusion of a new pedestrian route providing access to the site from the Bolton upon Dearne residential area.
Nature	<ul style="list-style-type: none"> N1 Provide a network of high quality, green open spaces with a variety of landscapes and activities, including play N2 Improve and enhance water management N3 Support rich and varied biodiversity 	✓	The proposal seeks to enhance the ecological value of the site by preserving the existing Carr Dike watercourse transecting the site. A technical proposal has been formulated to ensure the existing watercourse has been managed appropriately. The proposal includes the implementation of an SUSD (Sustainable Urban Drainage System). The use of balancing ponds can provide additional storage for the Carr Dike, reducing the risk of flooding. The scheme includes attenuation ponds which will provide additional habitats for wildlife. To limit the visual impact of the proposal, the inclusion of additional tree belts to the North, East and South of the site has been included in the proposal, not only reducing visual impact, but also enhancing the site ecologically.
Public Spaces	<ul style="list-style-type: none"> P1 Create well-located, high quality and attractive public spaces P2 Provide well-designed spaces that are safe P3 Make sure public spaces support social interaction 	✓	The newly proposed entrance to the site from the A635 will provide safer access for pedestrians with the inclusion of lighting columns and crossing points. Movement around the site is carried out through the use wide roads and paths to minimise congestion and ensure safe pedestrian access across the site.
Uses	<ul style="list-style-type: none"> U1 A mix of uses U2 A mix of home tenures, types and sizes U3 Socially inclusive 	✓	The proposed buildings on the site are in line with those described within the Goldthorpe Masterplan Framework document (Class B8 (and ancillary offices)). The proposed use sits coherently with the immediate surrounding context including Aldi Goldthorpe RDC and the Goldthorpe Industrial Estate.
Homes and Buildings	<ul style="list-style-type: none"> H1 Healthy, comfortable and safe internal and external environment H2 Well-related to external amenity and public spaces H3 Attention to detail: storage, waste, servicing and utilities 	✓	The plots will be designed to cater for the specific needs of the building users, employing WELL Building Standards to ensure the environment is safe both internally and externally during operation. The scheme includes external amenity space and a carefully considered external environment providing a positive external space for pedestrians and visitors. The scheme has considered storage, waste, servicing, utilities and accessibility to ensure the overall practicality of the scheme.
Resources	<ul style="list-style-type: none"> R1 Follow the energy hierarchy R2 Careful selection of materials and construction techniques R3 Maximise resilience 	✓	The scheme will aim to achieve a BREEAM Excellent Rating, considering sustainability across the project from energy to ecology. In terms of resources, the scheme will specify high-quality materials to ensure overall building resilience relative to the building typology.
Lifespan	<ul style="list-style-type: none"> L1 Well-managed and maintained L2 Adaptable to changing needs and evolving technologies L3 A sense of ownership 	✓	The typical lifespan for each unit would be approximately 50 years before maintenance may be required. Due to the nature of material selection, many of the materials to be specified will be recyclable following their lifespan. The employed construction technique used for the units will allow for adaptability as needs may change and technologies evolve.

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06.10 PROPOSED PLATEAU LEVELS

The proposed cut and fill has been based on a rationale to lower the proposed finished floor levels across the site in order to lower the ultimate ridge height of buildings and reduce visual impact.

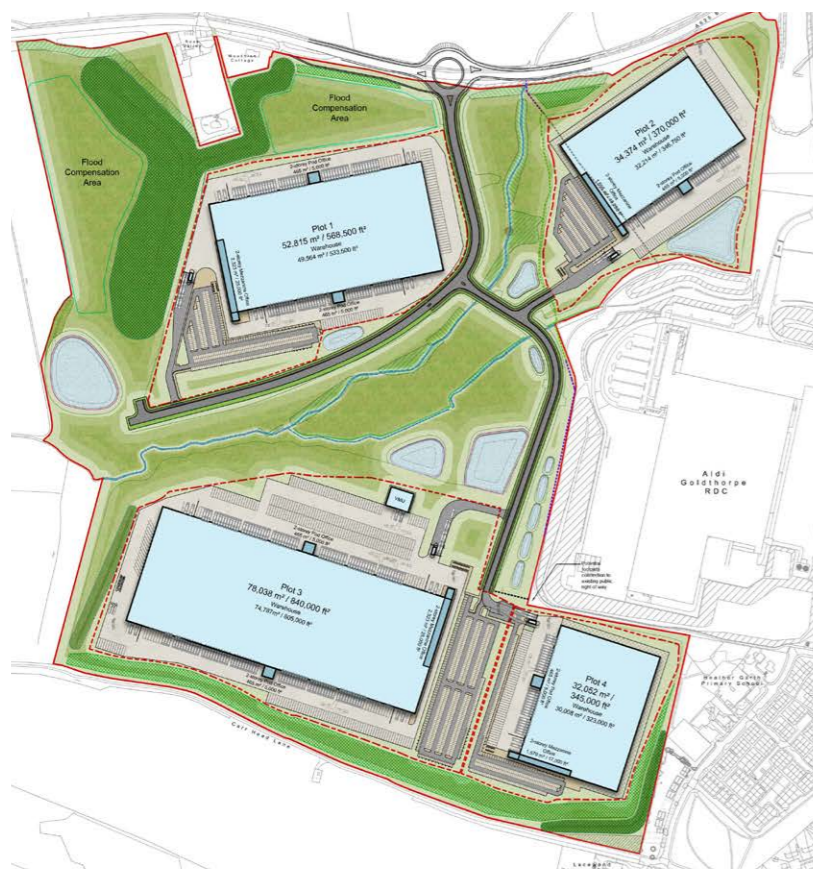
The plateau levels and indicative finished floor levels in m above ordnance datum are as follows:

Plot 1 – 24.5m (FFL: 25.5m)

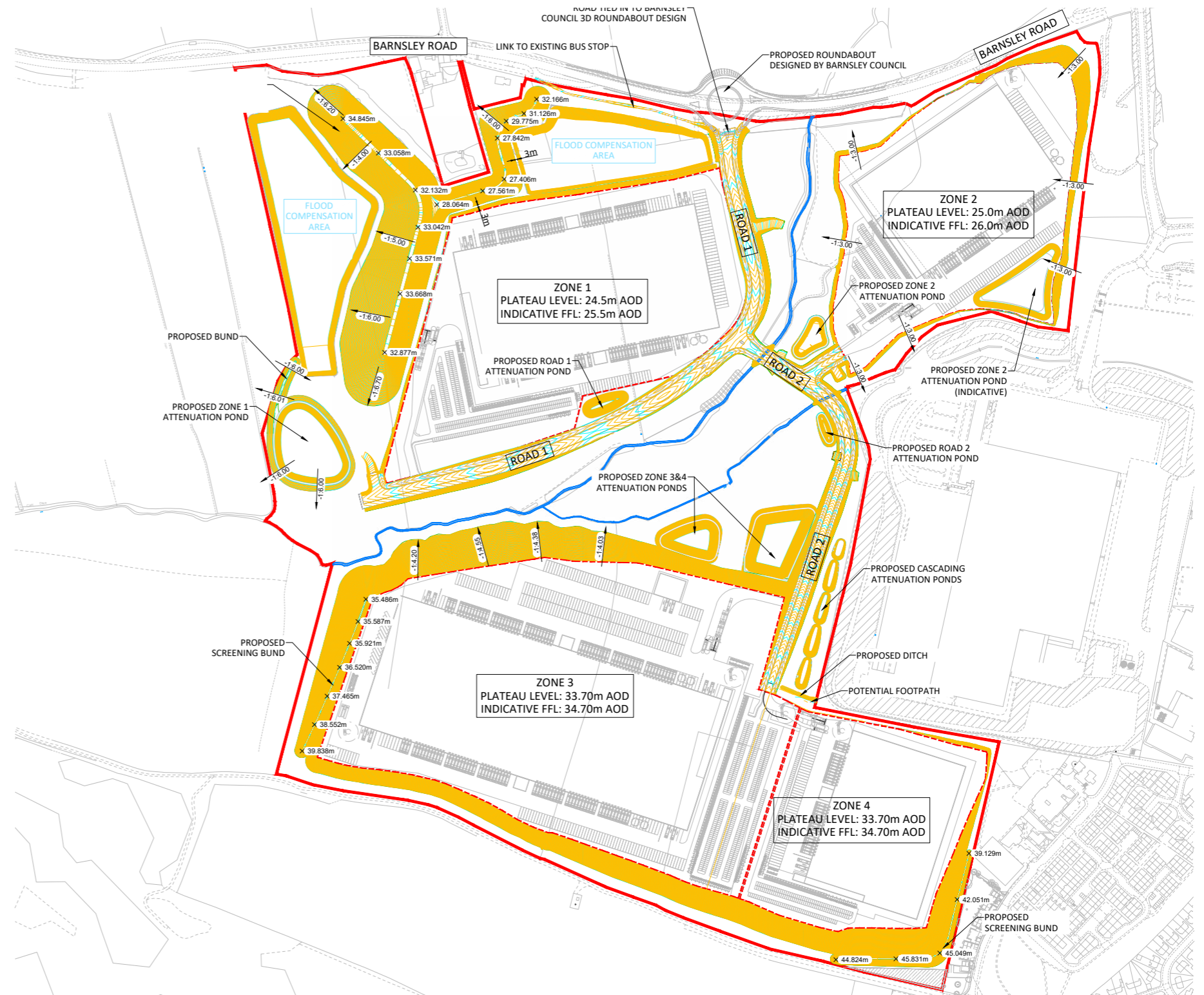
Plot 2 – 25.0m (FFL: 26.0m)

Plot 3 – 33.7m (FFL: 34.7m)

Plot 4 – 33.7m (FFL: 34.7m)



Illustrative Masterplan



Proposed Site Levels

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06.11 PLOT DESIGN

The following are important factors when designing the layout of the development plots:

- Access and manoeuvrability
- Site Parking
- Loading Capacity
- Development Frontage
- Overall Masterplan

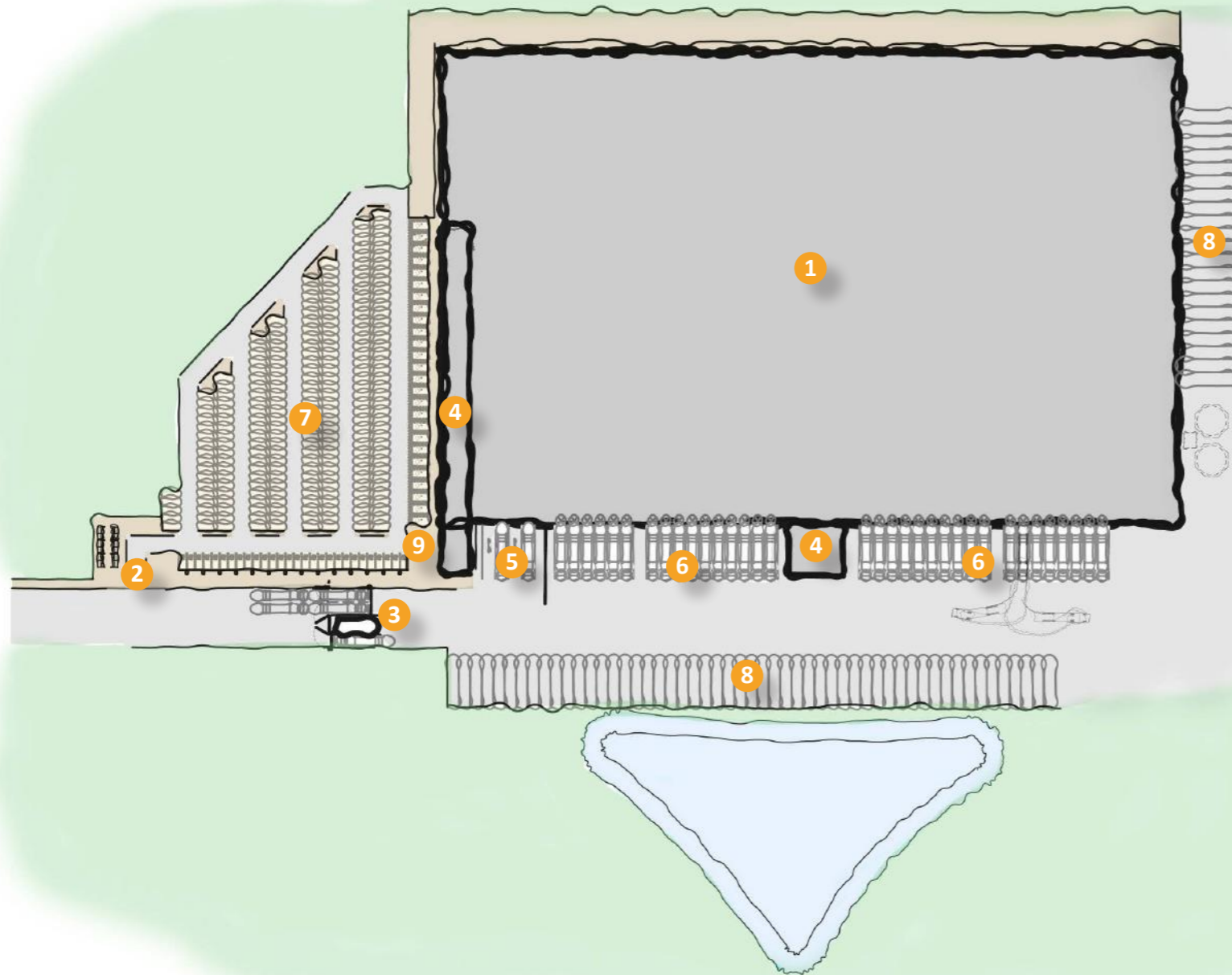
The sketch to the left is used as an example to explain the approach to the plot design below.

General Plot Design

The layouts aim to make effective use of the site whilst not impacting or restricting the development of the rest of the masterplan. The Unit layout has been designed to ensure efficient use of the site area, while optimising the soft landscaping that surrounds the development. Adequate parking is provided for cars through the use of a grade level car park which includes accessible parking spaces positioned within close proximity of entrance. Inclusive access throughout the site is achieved, where applicable, with 2m wide paths leading pedestrians from the car park to the ancillary office. Access into the site is sufficient for both disabled and able-bodied pedestrians.

An office and car park frontage has been provided to the Western, and Southern elevation of the building in order to provide a positive 'active' façade.

Heavy goods vehicles will arrive via the gatehouse controlled entry point (marked as '3' on the drawing to the left), to the perimeter plot boundaries. This will enable them to be checked in and given specific delivery instructions. Vehicles will exit the site from the same point. Service yards to units across the site are to be directed into the centre of the development and shielded from view. This allows sufficient circulation for HGV parking and loading for required number of loading doors. The service yards are set out with a minimum depth of 40m, sufficient to accommodate the necessary manoeuvring space in front of loading doors.



Indicative Plot Layout

Key

- | | | |
|------------------------|-----------------|-----------------|
| 1 Unit | 4 Office | 7 Car park |
| 2 Site Entrance (Cars) | 5 Level Access | 8 HGV Parking |
| 3 Site Entrance (HGVs) | 6 Loading Doors | 9 Main Entrance |

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Car Parks



Roads



Pathways



HGV Service Yards

06.12 PLOT HARD LANDSCAPING

Car Parks

The car park areas could be constructed in a mix of macadam and block work, which will form part of a coordinated hard landscaping strategy. Parking for cars is provided through the use of a grade level car park which includes 5% accessible parking spaces positioned within close proximity of the office entrance. Inclusive access throughout the plots is achieved, where applicable, with 2m wide paths leading pedestrians from the car park to the ancillary office.

Pathways

A 3m wide footpath / cycleway connection from the A635 will give access into the development from the North of the site, alongside the provision of a footpath to the East of the site providing access into the development from Goldthorpe/Bolton upon Dearne. This new route will link into the on-site infrastructure roads, all of which accommodate footpaths and cycleways as required. Lighting by street lamps during hours of darkness will help to provide a safe and secure environment for the pedestrian.

Inside individual plots, paths will lead from the car park to each office main entrance. Tactile paving and dropped kerbs will be provided at all road junctions, with further paving extended around offices and to the warehouse perimeter.

Roads

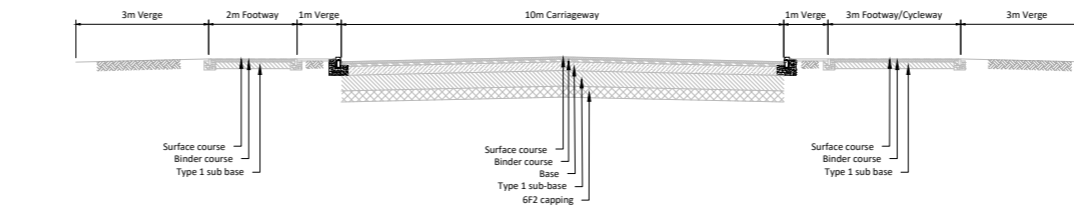
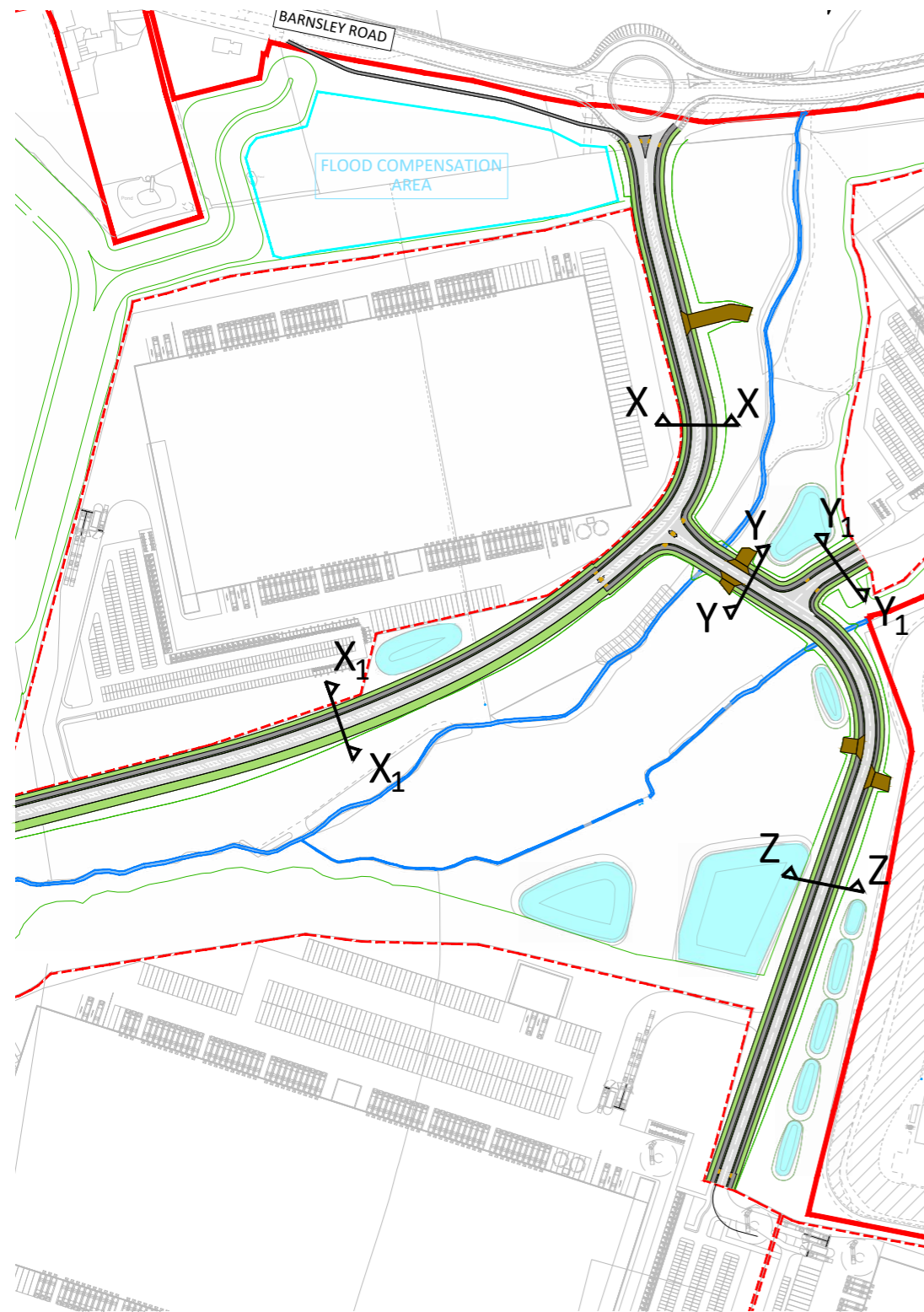
Access to the site will be via a new roundabout on the A635. The entrance into each unit will be designed to accommodate vehicle queuing, particularly at gatehouse / barrier control points which will help to manage and contain the flow of traffic both into the site and back out onto the roads.

HGV Service Yards

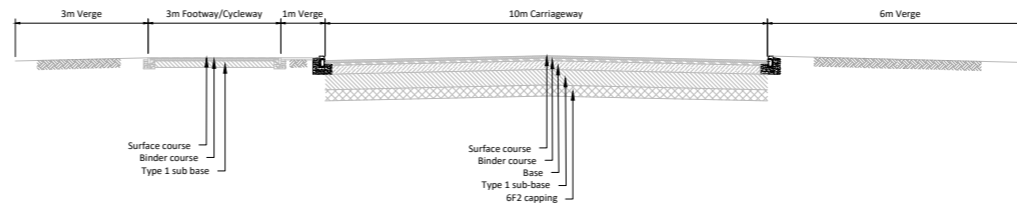
Concrete service yards are formed usually on one side of the main warehouse building to allow sufficient circulation for HGV parking and loading for required number of loading doors. The service yard is usually set out with a minimum depth of 40m.

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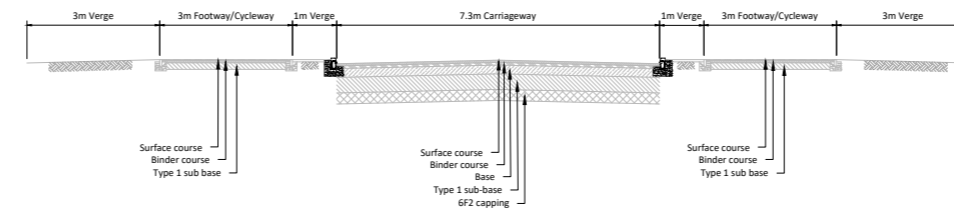
06.12 PLOT HARD LANDSCAPING



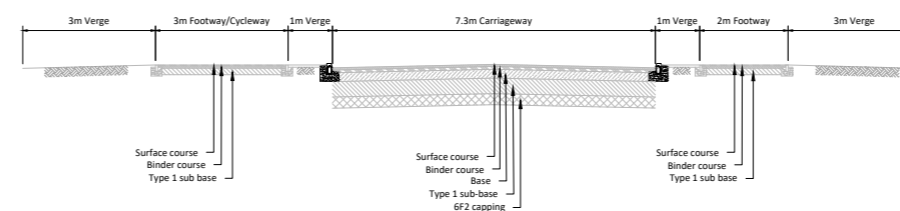
Section X-X



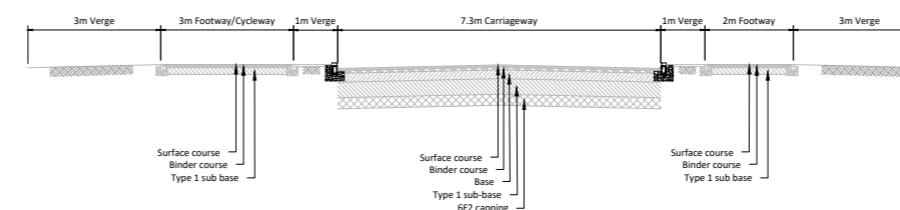
Section X₁-X₂



Section Y-Y



Section Y₁-Y₂



Section Z-Z

The proposed access roads across the site have been designed to provide appropriate connectivity to each of the plots. Upon entering the site, the proposed road width is 10m to provide safe access for vehicles entering the site. The remaining roads are proposed to be 7.3m wide. This will ensure safe access across the site for both vehicles, pedestrians and cyclists, alongside suitable access for emergency vehicles.

A technical proposal has been formulated which defines appropriate build ups based on the existing site topography and conditions.



Indicative Roads



Indicative Road/Path

06 DEVELOPMENT PROPOSALS

06.13 PROPOSED CULVERTS

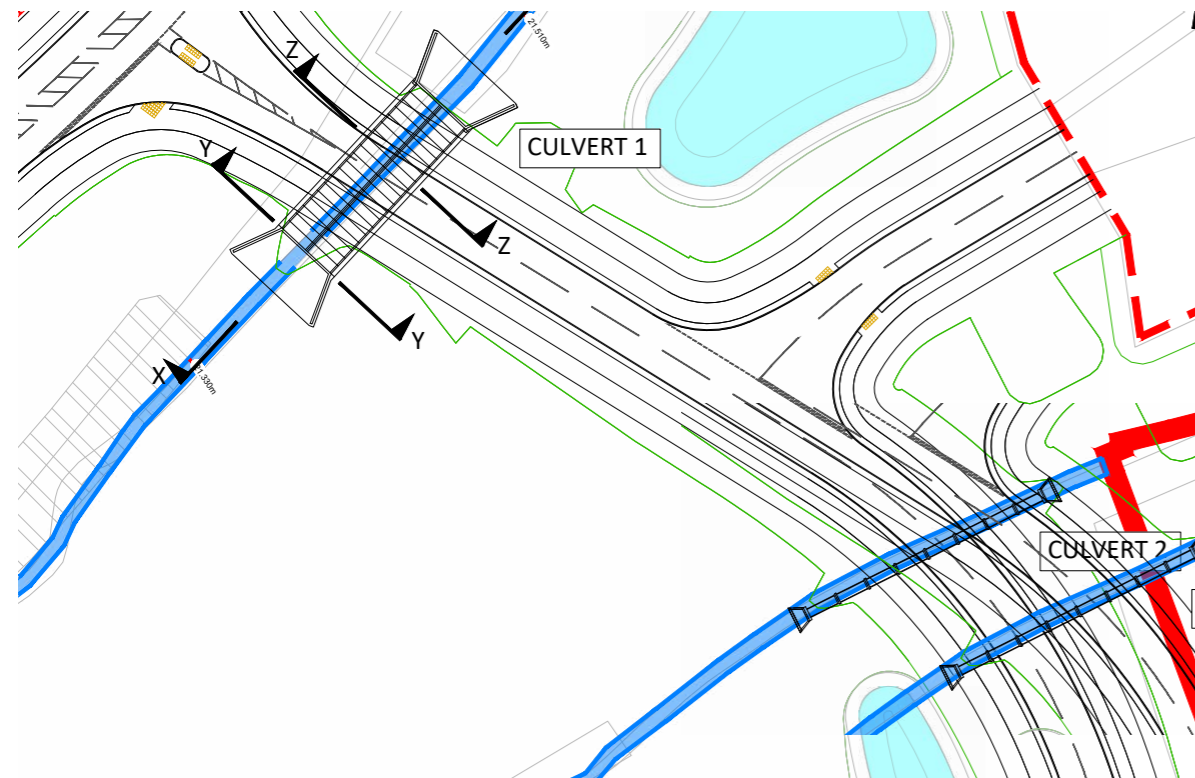
The proposed scheme aims to preserve the existing watercourse which transects the site. Due to the scale of the scheme and the route of the existing watercourse, the proposed access road crosses over the watercourse as indicated below.

As a result a technical proposal has been formulated which proposes the incorporation of two culverts at these crossing points.

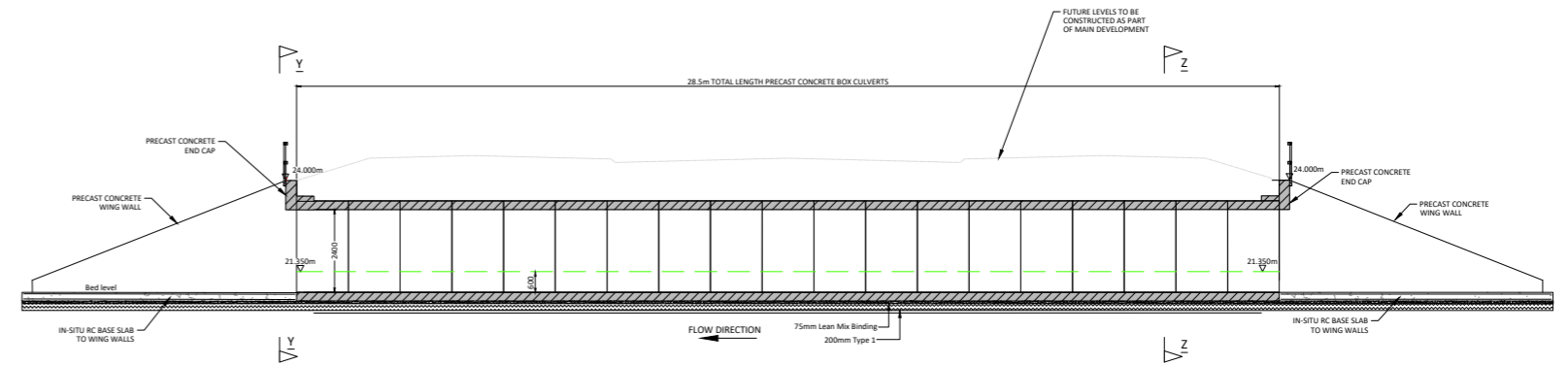
The culverts will not be detrimental to ecology of the site and will be necessary to allow the full extent of the site to be utilised. They form a pivotal part of the proposed connectivity strategy and the provision of a spinal road connecting the 4 plots within the site constraints.



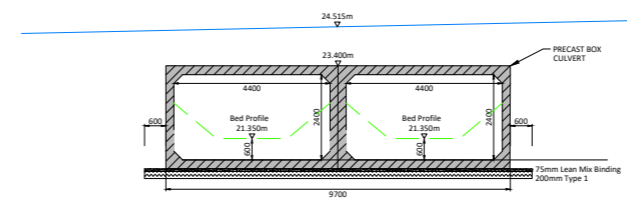
Illustrative Masterplan



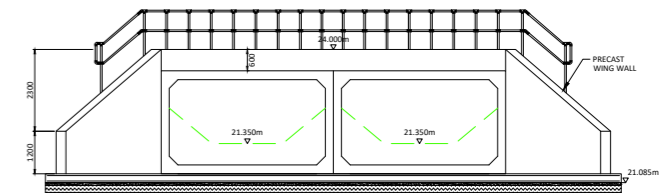
Proposed Culvert Locations



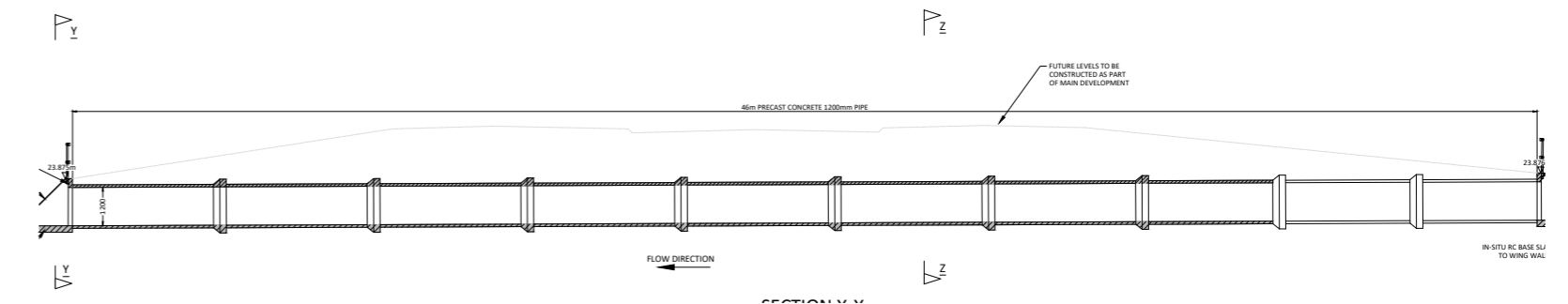
Culvert 1 - Section X-X



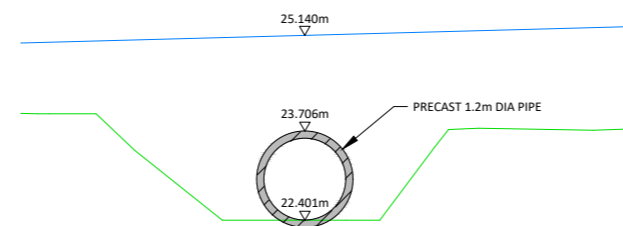
Culvert 1 - Section Z-Z



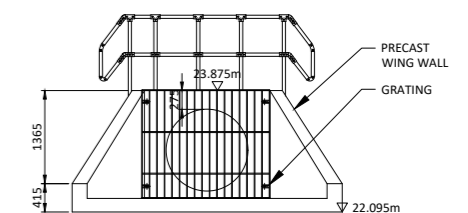
Culvert 1 - Section Y-Y



Culvert 2 - Section X-X



Culvert 2 - Section Z-Z



Culvert 2 - Section Y-Y

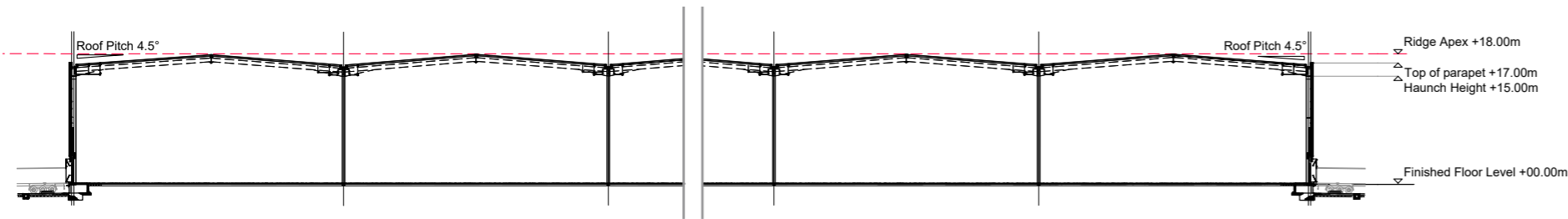
06 DEVELOPMENT PROPOSALS

06.14 SCALE AND MASSING

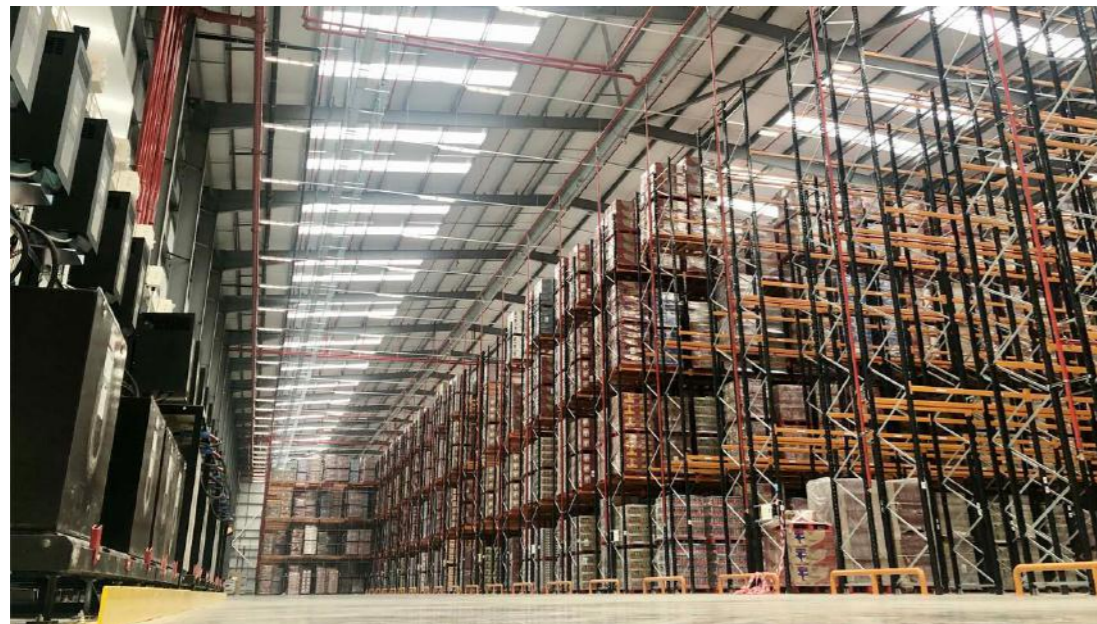
The proposed warehouse buildings shown on the illustrative masterplan are based around the operational practicalities and business needs of potential Occupiers. The size and height of the buildings, set within the proposed parameters, are designed to accommodate current market requirements, whilst building in flexibility for future changing needs. Furthermore, the scale is in line with the Goldthorpe Masterplan Framework which states "buildings should not exceed 15m to the highest point where the footprint is 20,000m² or less, and should not exceed 18m to the highest point where footprints are over 20,000m²."

To accommodate the types of storage and sortation equipment that have been introduced to units of this size in recent years, owing to improvements in automation & racking technology, warehouse building heights have generally increased as Occupiers look to achieve greater storage capacities.

To accommodate various types of sortation equipment that have been introduced to units of this size in recent years as well as being anticipated in the future, the proposed unit height shown is 18m from FFL to ridge providing a clear internal height of 15m. This is to minimise visual impact to the surrounding context and ensure compliance with the Goldthorpe Masterplan Framework.



Unit 1 Indicative Warehouse Section



Example of Typical Racking