

DESIGN AND ACCESS STATEMENT

Purfleet Commercial Park, Thurrock

For:



Revision G

JJM 02.09.2019



UMC Architects, Newark Beacon Innovation Centre,
Cafferata Way, Newark, Nottinghamshire NG24 2TN
o. +44 (0)1636 653027
f. +44 (0)1636 653010
e. info@umcarchitects.com
www.umcarchitects.com



00 | CONTENTS

1.0 Introduction

- 1.1 Statement Overview
- 1.2 The Brief
- 1.3 Report Content and Structure
- 1.4 Other Key Documents

2.0 Planning Policy

- 2.1 Introduction
- 2.2 National Design & Access Policies
- 2.3 Local Design & Access Policies

3.0 The Site

- 3.1 Site Location
- 3.2 Existing Cycle Network
- 3.3 Existing Public Transport Network
- 3.4 Urban Framework and Existing Building Use
- 3.5 Purfleet
- 3.6 Site History
- 3.7 Existing Site Context Photographic Appraisal
- 3.8 Site Constraints

4.0 Key Design Principles

- 4.1 Key Principles

5.0 Development Proposals

- 5.1 Site Layout Plan
- 5.2 Proposed Amounts
- 5.3 Layout
- 5.4 Scale & Massing
- 5.5 Warehouse plan
- 5.6 Building Materials
- 5.7 Building Elevations
- 5.8 Aerial View From North East
- 5.9 Perspective View
- 5.10 Landscaping Strategy
- 5.11 Landscaping Proposal
- 5.12 Estate Management
- 5.13 Lighting Design Principles
- 5.14 Car and Parking Provision
- 5.15 Motorcycle Parking Provisions
- 5.16 Cycle Parking Provision
- 5.17 Waste & Recycling Management Strategy

6.0 Access

- 6.1 Pedestrian Access
- 6.2 Pedestrian Access - Internal
- 6.3 Vehicle Access Plan
- 6.4 Pedestrian Access Plan

7.0 Crime Prevention

- 7.1 Crime Prevention
- 7.2 Access and Movement
- 7.3 Structure
- 7.4 Physical Protection

8.0 Sustainability

8.1 Sustainability

9.0 Summary

- 9.1 Summary

01 INTRODUCTION



01 | INTRODUCTION

01.1 STATEMENT OVERVIEW

This document has been prepared as part of the supporting documentation for a Planning Application for the proposed development at Purfleet Commercial Park, Thurrock. The location of the site is shown on UMC planning drawing 16040_P0001

The proposal sits within a site demise of 19.77 acres (8.00 hectares), previously used as a quarry within Purfleet, which is situated North of the River Thames. The site is accessed from Stonehouse Road via Arterial Road / A1306, which runs parallel to the north of the site, this connects to the A282 at Junction 31 for the Dartford Crossing and the M25. It sits within the established urban area of Purfleet.

This Design and Access Statement has been prepared by UMC Architects on behalf of Goodman (the applicant).

This document highlights the physical design and identifies rational design responses in respect of access, appearance, landscaping, layout and scale.

01.2 THE BRIEF

The purpose of this document is to initiate the design and how this continues to be attainable by further analysis of the principles relating to access, appearance, landscaping, layout and scale.

The Planning application is for the erection of 31,424sq m of storage and distribution floorspace (Use Class B8), footpath and cycle routes, drainage works, associated car and HGV parking, and associated warehousing plant and infrastructure.

This application demonstrates that the areas of SSSI located within the site demise have been sensitively considered in order to preserve and avoid disruption. The current design will allow for the increase in local employment opportunities whilst providing a unit that is adaptable and versatile for an end occupier.

Goodman have expert knowledge of the industrial, commercial and distribution sectors. They have extensive experience of numerous major developments. The design considerations of this proposal draws upon this wealth of experience to provide a robust proposal to meet the current and developing requirements of various potential end users and operators.

The documents contained within the planning application provide details of the proposed development, whilst this statement describes the design principles including building design, layout, access, scale and landscaping.

01.3 REPORT CONTENT AND STRUCTURE

This statement is in accordance with the requirements of the planning application processes. These are set out in the National Planning Practice Guidance, published in 2014.

The statement is structured as follows:

- Section 1.0 is an introduction.
- Section 2.0 is a summary of relevant national and local planning policies.
- Section 3.0 is a site appraisal, involving a photographic analysis of the site and its broader context and connections.
- Section 4.0 evaluates the site, constraints and key principles of the design.
- Section 5.0 evaluates the proposed development proposals.
- Section 6.0 focuses on the access principles within the proposed scheme as well as aspects of sustainability and crime prevention throughout the site.
- Section 7.0 provides further information regarding crime prevention and physical protection.
- Section 8.0 provides a commentary regarding sustainable design measures.

01.4 OTHER KEY DOCUMENTS

This document should be read in conjunction with the other technical reports and supporting documents submitted as part of this application:

- Application forms and Planning Statement prepared by Goodman;
- Application drawings prepared by UMC Architects;
- Landscaping Strategy prepared by Barry Chinn Associates;
- Transport Statement and Travel Plan prepared by Walker Engineering;
- Noise Assessment prepared by Vanguardia;
- Energy Statement prepared by MBA;
- Visual Impact Assessment and Ecological Appraisal prepared by FPCR;
- Flood Risk Assessment prepared by BWB.



Site Layout

02 PLANNING POLICY



02| PLANNING POLICY

02.1 INTRODUCTION

02.1.1 The planning policy context for the site is explained in the accompanying Planning Statement. In formulating the proposed development, consideration has been given to national and local planning policies:

- National planning policies include the National Planning Policy Framework (NPPF);
- Local planning policies include the Thurrock Core Strategy and Policies for Management of Development (adopted in January 2015).

02.2 NATIONAL DESIGN AND ACCESS POLICIES

02.2.1 Section 12 of the NPPF seeks to achieve well designed places. Paragraph 124 states that good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities. Paragraph 128 goes on to provide that design quality should be considered throughout the evolution and assessment of individual proposals. It states that early discussion between applicants, the local planning authority and local community about the design and style of emerging schemes is important for clarifying expectations and reconciling local and commercial interest

02.2.2 Paragraph 127 provides that planning decisions should ensure that developments:

- Will function well and add to the overall quality of the area over the lifetime of the development
- Are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;
- Are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities); arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit.

- Optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development and support local transport networks;
- Create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity and future users; and where crime and disorder, and the fear of crime, do not undermine the quality of life.

02.2.3 In terms of access, Paragraph 108 provides that, in assessing planning applications, it should be assured that safe and suitable access can be achieved for all users. Policy 110 goes on to prioritise pedestrian and cycle movement; access to high quality public transport; the needs of people with reduced mobility; and efficient delivery of goods.

02.3 LOCAL DESIGN AND ACCESS POLICIES

02.3.1 At the local level, Thurrock Council's Strategic Spatial Objectives include "a safe, healthy, accessible and inclusive environment for the community of Thurrock through high quality design-led development" (SSO5) and "a safe transport system that supports accessibility" (SSO10).

02.3.2 The 'Core Strategy and Policies for Management of Development' includes the following thematic provisions in respect of design and access:

- Support for improvements to accessibility to work including support for more sustainable travel patterns through the use of workplace travel plans (Policy CSTP15);
- Promotion of high quality design in Thurrock, taking account of factors including positive response to local context, the creation of a sense of place, a high standard of inclusive design, contribution towards community safety, use of sustainable resources, and mitigation of adverse effects (Policy CSTP22);
- Protection and management of the character of Thurrock to ensure improved quality and strengthened sense of place, including at Strategic Employment Hubs. (Policy CSTP23);

- Encouragement of opportunities to generate energy from low carbon sources and ensures that effort is made to achieve a significant carbon reduction in all new development (Policy CSTP26).

02.3.3 It also includes the following development management policies in respect of design and access considerations:

- Provision for minimising pollution and impacts on amenity, health, safety and the natural environment (Policy PMD1);
- Provision for all design proposals to respond to the sensitivity of the site and surroundings, to optimise potential to accommodate development and to mitigate against negative impacts. Reference is made to design and layout criteria in respect of character, continuity, public realm, accessibility, legibility, security, landscape, utilities and energy use (Policy PMD2);
- Reference to parking standards including design of parking standards to be managed and monitored from commercial premises (Policy PMD8);
- Criteria for BREEAM in non-residential buildings and for energy and water standards (Policy PMD12).

02.3.4 In addition, Thurrock Council adopted a Design Strategy Supplementary Planning Document in March 2017, which provides more detailed guidance for the application of policies (including PMD2) in terms of ensuring that new developments are of a high design quality and respond in an appropriate way to site context.

03 THE SITE

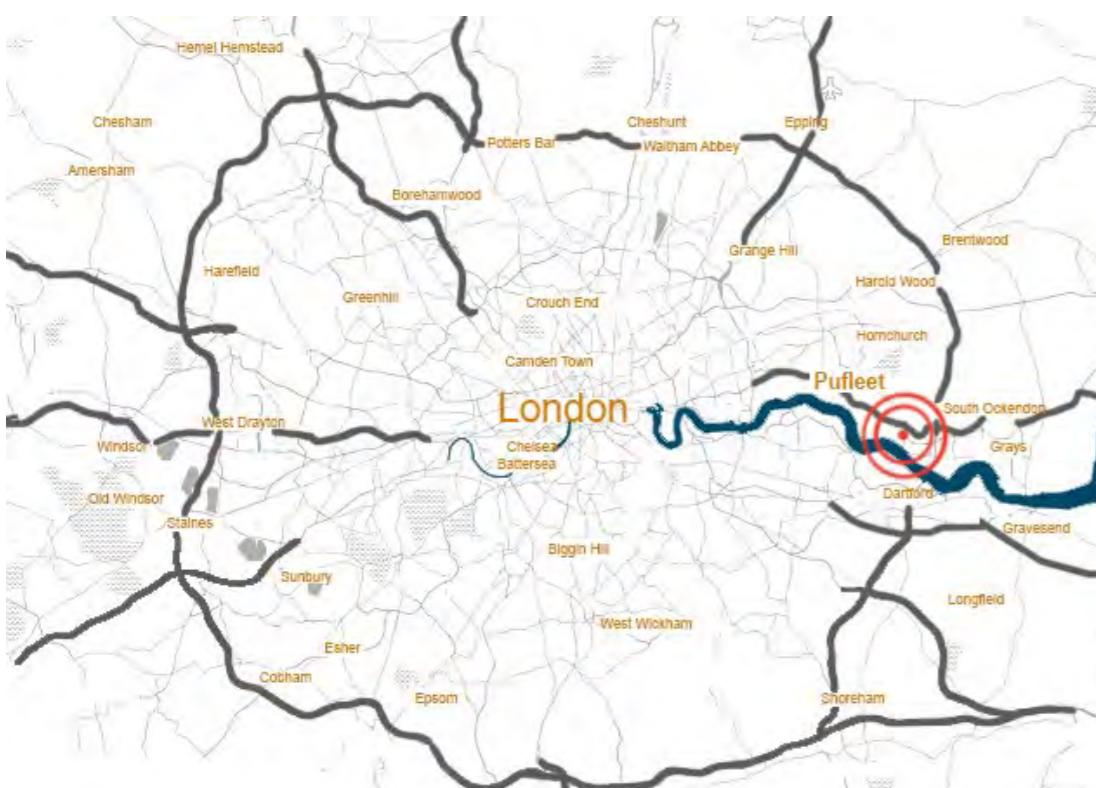


03| THE SITE

03.1 SITE LOCATION

Purfleet Commercial Park is located approximately 1 mile (1.6 km) East of Purfleet town centre. The site has an existing transport network around it, making it easily accessible. The site is immediately accessed by Stonehouse Lane via Arterial Road / A1306, to the northern part of the site. The A282 is one of the major roads feeding into the site. The southern part of the A282, which comprises of the Queen Elizabeth II Bridge and the Dartford Crossing, provides access from the Southern side of the Thames. Other major roads within a mile radius also include the A13 and M25 which are located north of the site.

The plan below shows Purfleet's location within London and strategic transport network context.



Purfleet Location



03.2 EXISTING CYCLE NETWORK

Existing national cycle route 137 is located in close proximity to the western and northern boundaries of the site and connects to the national cycle route 13 to the north of the Thames at Tank Hill Road. This allows connectivity to London to the west.

03.3 EXISTING PUBLIC TRANSPORT NETWORK

Coast to Coast main line is located a mile away at Purfleet Train station connecting to London Fenchurch Street to the West and Southend to the East.

The site is strategically well placed to be served by existing bus services, which include the Route 44 service operated by Ensign.

For further information regarding existing public transport infrastructure please refer to the Framework Travel Plan by Walker Engineering.

- KEY:
- Major Roads
 - Main Roads
 - River Thames
 - Cycle Route
 - Railway Line
 - Boundary
 - 137 13 Cycle Route Numbers



Site Location - Wider Context

03| THE SITE

03.4 URBAN FRAMEWORK AND EXISTING BUILDING USE

The existing land usage plan shown to the left highlights a range of building and land uses within the local area. Achieving a balance between building types and usages is key to achieving a sustainable local community.



Site Location - Existing Land Usage



03.5 PURFLEET

Local vicinity land usage consists of a high concentration of distribution and logistics centres with residential to the west and retail and commercial to the east. Photographs on the opposite page provide an aid to understand the local identity of facades, appearance and scale.



1 - Premier Inn - Stonehouse Lane



2 - DSV - Stonehouse Lane



3 - Tesco Distribution LM 400



4 - Carpetright Distribution Centre



5 - Higgs International



6 - Thurrock Shopping Park - Weston Avenue



7 - DHL - Weston Avenue



8 - Tropifruit - Dolphin Way



03| THE SITE

03.6 SITE HISTORY

Industrial and Commercial Expansion

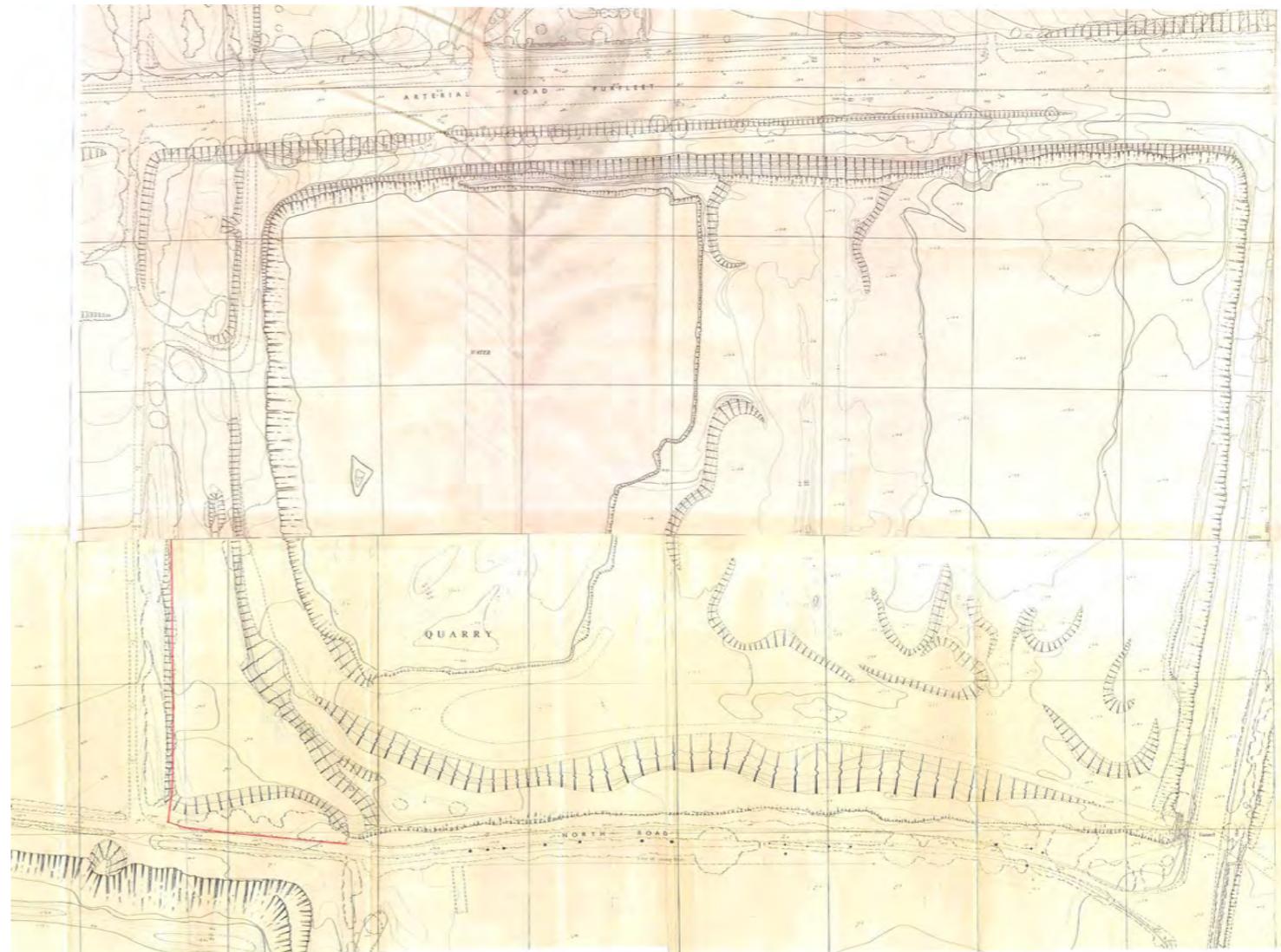
Previous application 10/50227/TTGFUL granted outline permission for storage and distribution development and a hotel with associated access arrangements for the in filling of the quarry by between the depths of 7 – 12m.

The infilling works proposed within application 10/50227/TTGFUL and adapted within the application 17/01680/CV were to allow for the formation of a development plot in the area of a former chalk extraction mine. It is expected that the infilling works will have been completed by the end of 2019.

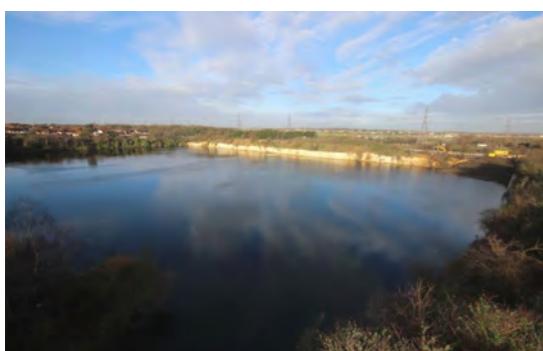
The retained and protected SSSI cliff face lies in what used to be the banks of the ancient River Thames, with fossilised shells found dating back to over 300,000 years ago.

This multi banded cliff face was formed from interglacial deposits from the varying cold and warm climates. Among the interesting finds of this cliff face include, ancient fish and Macaque monkey finger bones and spotted Hyena excrement. During the warmer climates these types of animals were native to these regions. It wasn't until the ice age that the wildlife returned to Africa.

With this in mind the SSSI has been thoughtfully designed into the development, maintaining a clear no build zone whilst allowing sufficient access routes to the gravels.



Historical Map



Site - January 2016



Site - May 2016



Site - September 2016



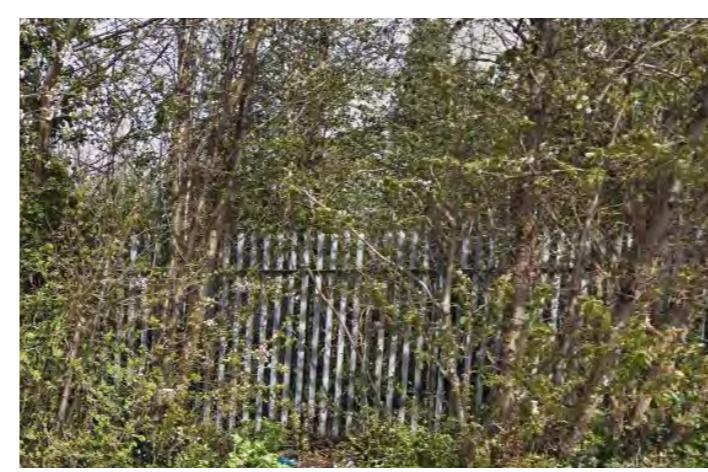
Site - October 2016



Site - March 2017

03.7 EXISTING SITE CONTEXT PHOTOGRAPHIC APPRAISAL

Images 1 – 6 show current site conditions and existing plateau of the site as covered under application 17/01680/CV. Photos identify the landscape is currently unkept with dense vegetation to the southern and western boundary with little landscaping to the northern and eastern boundaries.



03| THE SITE

03.8 SITE CONSTRAINTS

Topographical / Environment levels

The site level is being raised to provide a plateau level of 6.4m AOD. Chalk cliffs are still present, to the southern and eastern boundaries offsets have been taken into account when formulating the layout.

Nearby Residential Properties

The site is shielded on by commercial and industrial buildings and activities on the eastern and southern boundaries. The nearest residential receptor is located approximately over 30m beyond the western boundary on the opposite side of Armor Road. Acoustic fencing will be included to mitigate any noise from the associated unit activities. Refer to the Noise Assessment for the acoustic mitigation requirements.

Public Transport

The site is located along the Purfleet Arterial Road and as such, already has access to Public Transport services close to its frontage and within a 5 minute walk. The existing Arriva Service 44 links the main Bus Station at Grays with both the Railway Station at Purfleet and the main Industrial Park to the northwest, suggesting that a good proportion of the trips emanating from the site could be made by bus.

Public Rights of Way

There is an existing public right of way running along the western boundary which forms part of the national cycle route 137.

Adjacent Roads and Vehicular Access Points

A key benefit of the sites location is its proximity to the existing transport network, which provides access to the existing urban area of Thurrock and also to the wider South East and London.

Ecology

The Ecological Appraisal prepared by FPCR confirms that the central areas of the site are completely void of habitats as a result of the infilling operation. Ecological features of interest are separated from the development area by the topography of the site. The proposal presents the opportunity to create new habitats, including new grassland within the site layout.

Site of Special Scientific Interest (SSSI)

To part of the southern and western boundaries of the proposed site lies a SSSI - Purfleet Chalk Pits.

The chalk pits expose sands and gravels which are associated with the ancient course of the River Thames. Paleolithic fossils have been found consisting of monkey, beaver and bison remains as well as coprolite of a hyena which shed light on the environmental and conditions at the time when they were deposited. The deposit is over 300,000 years old, and laid down when this section of the Thames was flowing westwards.

Watercourses and Standing Water

Following the quarry infill; no standing water or watercourses are located within the site demise.

Existing Trees / Hedgerows

Refer to landscaping section 5.10 and 5.11 for synopsis.

Flood Risk Zones

As indicated on the adjacent diagrams the site lies within the river water flood risk zone.

A Flood Risk Assessment has been prepared, which concludes that, subject to appropriate mitigation measures, the redevelopment of the site would not be subject to significant flood risk and would not increase flood risk to the wider catchment area.



Access Road Perspective CGI

04 KEY DESIGN PRINCIPLES



04| KEY DESIGN PRINCIPLES

04.1 KEY PRINCIPLES

Many of the key design principles have been derived from the review of the constraints and opportunities associated with the site.

The application proposals seek to create opportunities for the following principles:

Character and Stonehouse Lane

Create attractive, self-contained and functional buildings with their own identity but relating well with their neighbouring industrial and commercial context. Adding to and enhancing the existing character of the Armor Road.

Quality of the External Realm

Create a welcoming environment for the workforce and visitors alike, with suitable cycling and pedestrian infrastructure and green edge landscape buffers.

Scale, Height and Massing

Establish size and scale of a building which relates to the rest of the surrounding development, surrounding context and are appropriate for their function.

Appearance

Create a visually attractive appearance to the site, by using appropriate materials for the locality and building type, which are also robust and will not deteriorate with time. The building is to be designed in a way that minimises its visual impact, whilst providing visible interest around main entrances and key frontage.

Functionality

Provide a building which will meet the long-term needs of the occupiers for running efficient and successful businesses of varying scales.

Institutional Requirements

Exceed the appropriate standard requirement of safety, accessibility, energy efficiency and institutional requirements.

Orientation

Ensure the building provides appropriate frontage to the access road allowing visitors, staff and drivers a clear orientation and reference point on arrival. The office entrance is located to the Northern elevation to reinforce this.

Access

Provide safe and effective access points into the site from the existing and proposed infrastructure, allowing segregation of movement between vehicles, cyclists and pedestrians entering the site.

Movement

Provide a clear, legible and segregated vehicular movement strategy, incorporating all road entrances, loading and vehicular parking areas.

04.2 KEY PRINCIPLES ANALYSIS

Establish a high quality development in a predominantly commercial and industrial location

The design of the development aims to achieve successful integration of design, sustainability and connectivity within the existing context. In turn helping to promote local employment in the surrounding residential areas of Purfleet.

Contribute directly to creating safe, attractive spaces with high quality buildings and landscape

The development employs methods of natural security by positioning car parking in front of the office the proposed unit will be sleek and simple in design, with a contemporary colour palette and large glazed areas providing a high quality working environment. The existing vegetation will be complimented with a considered landscaping approach will enhance areas to boundaries and will provide a softer and attractive environment for site users.

Design buildings which respect existing context

The unit will be up to a maximum of 18m to the underside of haunch as set out within the proposals plan. This not only takes account of the visual appearance that the development will have on the surrounding context but also enables the development to reflect with other local buildings in terms of unit scale.

Create sustainable, well designed buildings, which are good places to work

The unit will be designed so that where applicable natural lighting will provide the primary source of light. Good lighting levels throughout the development mitigate health and safety hazards within the workplace whilst promoting a healthy and efficient work force.

The building and site layout should fulfil a required level of security and operational functionality

The yards will be securely contained with timber fencing set in a landscaped context to aid security. The car park will be overlooked by the unit frontage providing natural surveillance of personnel and property.

Ensure inclusive design to allow for a good level of accessibility within and between buildings

The site layout is to be suitable for both able-bodied and accessible use, not restricting users anywhere across the site. The appropriate amount of accessible parking will be allocated and be located close to the level building entrances where possible. For further information on accessibility please refer to section 6.0 of this report.

05 DEVELOPMENT PROPOSALS



05| DEVELOPMENT PROPOSALS

05.1 SITE LAYOUT PLAN

Proposed Use

This section describes the process of design and how it has been informed by Section 3, in order to define those constraints that restrict the site's redevelopment and identify the opportunities and options for development.

The use class applied for within the application is B8 employment use. In proposing this, it is likely that the end user will require 24-hour operation, to provide flexibility and help efficiency, whilst also giving opportunity for traffic associated with the development to be spread outside of peak hours to minimise any impact on surrounding roads.

The following ancillary functions would also be provided for:

- Two storey integral mezzanine administration offices supporting distribution and management elements
- Two storey semi-detached Transport Offices supporting logistics and warehouse elements
- Security gatehouse with associated vehicle barriers
- Service yards with lorry parking 59 No.
- Cycle / Motorcycle storage
- Car Parking for 263 No.

The warehouse area is designed to provide a flexible space which can either be retained as a single temperature space or can be subdivided into areas having different temperature and humidity regimes, enabling appropriate storage of the different types of goods available within a retail environment.

The size and shape of the plot lends itself to use as a distribution centre – the UK distribution and warehousing market has seen dynamic growth in the last 15 years, largely driven by retailers both directly and indirectly via third party logistics companies. Additionally, the growth of e-commerce has seen companies requiring operational hubs located close to the national road network.

An important factor for logistics operators is the cost of transport. Therefore, the location of distribution warehousing close to the national road network is significant as is the ability for pools of mixed skilled workers to access them. With the proximity of the M25, the building offers an excellent location for distribution, while avoiding routes through residential or small-scale retail areas.



Proposed Site Plan

05.2 PROPOSED AMOUNT

The proposed Site Layout submitted as part of this application (drawing reference 16040_P0002) comprises a steel-framed, single storey warehouse, with a mixture of adjoining ancillary office and operational areas. The development has a gross internal area of 31,424m² (338,267 ft²), and contains each of the components listed under section 4.1. With an individual plot density of 39.3 %, significant space is left around the building for necessary vehicle loading manoeuvres and parking.

The size of these areas are to reflect the dimensions of modern articulated vehicles and their turning circles. External space, where possible, has also been designed to allow for a soft landscaping scheme to be implemented. This enhances the general neighbourhood, whilst also softening external views of the building facade. Landscaping is limited due to the constraints inherited from its previous quarry use. The development requires all hardstanding, including building area to be piled with a suspended concrete slab above. As a consequence this constraint restricts the extent of additional landscaping that can be provided within the site.

With the addition of ancillary items such as requirements for sprinkler tanks, it quickly becomes apparent how a single occupier alone can demand a significant plot area. An additional consideration is that developments such as these, when fully stocked can present significant security risks for operators. As such, it is of paramount importance that all areas are fenced with access control maintained by a gatehouse.

It is therefore a question of careful attention to detail as to how to deal with these types of buildings. The treatment of rooflines and the use of colour become of paramount importance together with the careful articulation of any ancillary office elements.

05.3 LAYOUT

The proposed layout would provide for a single building and would offer a modern and flexible development to accommodate business activity.

The service yard is created along the northern elevation with sufficient depth allowing for additional lorry parking.

This yard allows for HGV parking and loading, with both dock levellers and level access doors. The geometry of the lorry manoeuvres has been calculated to make maximum effect of the yard size.

Inclusive access throughout the site is achieved, where applicable, with 2m wide paths/pedestrian footpaths linking the car park with the ancillary offices. The building will be serviced by tenant-owned fleet vehicles, and those belonging to external suppliers, with parking provided for 59 No. HGV parking spaces.

Vehicles will arrive, via the gatehouse check point, to the north-eastern corner of the site. This will enable them to be checked in and given a specific dock location. They shall then move onto the site docking on the building. If all docks are occupied, there are enough parking bays opposite to allow drivers to wait until docking space is allocated.

The yards are set out with a depth sufficient 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 distribution docks. They are laid out so that drivers can employ the right-hand-down manoeuvre when reversing into docks, as British registered, right-hand drive, vehicles are much easier to park using this high level of visibility from the lorry cab.

A projecting 2-storey mezzanine ancillary office is positioned on the eastern elevation opposite the main car park. This provides a frontage to the site & an orientation point for visitors. Consideration has been given to pedestrian and vehicular traffic, with each employing different routes to the building. Access into the site is sufficient for both disabled and able-bodied pedestrians, with appropriate parking and accessible spaces provided in close proximity.

As the development is of a high quality, staff wellbeing has been greatly considered throughout the design. With the importance of health, happiness, comfort and security being major factors of promoting staff wellbeing recreational space has been incorporated into the south west corner of the site.

A delineated running track is proposed along the units West elevation in the location of the fire appliance circulation. This is generally an area of unused space in typical developments, only ever used in the event of an emergency or during the buildings general cleaning and maintenance. The running track will help promote fitness and health for staff.

The proposal also allows for the staff to have access to an outdoor seating area adjacent to a pond designed for water attenuation. The pond and outdoor space will not only provide a break for staff from the working environment but also encourage nature habitats to be formed and flourish.



Indicative Established Attenuation Pond

05| DEVELOPMENT PROPOSALS

05.4 SCALE AND MASSING

Massing

The building massing within the site plan has been developed to be contextually suited within the surrounding area. By breaking down the massing, an architectural hierarchy is achieved within the overall composition of the site, and the resulting streetscapes are enhanced by the addition of the scheme and animated by the entrance point. The elevational treatment has been designed to minimise the visual impact of the building, while enhancing the design. Cladding panels in a neutral colour palette have been used to emphasise elements of the structure, with horizontal and vertical textures creating juxtaposition between different components of the scheme. The building has been clad in profiled metal cladding with white horizontal profile on the higher element of the building to assist in reducing the apparent height. Further to this, the 'bar coding' vertical bands break up the elevations assisting in reducing the elevational lengths. The office elements help to add human scale to be built from. This is achieved by using horizontal strips of glazing, with full height glazed feature to the main pedestrian.

Proposed Roof Forms

By utilising a Griffon roof form, the buildings are able to achieve a significantly lower apex than that of a parapet or traditional pitched roof, helping to minimise visual impact and reducing heating and cooling input with the resulting reduced building volume. This roof structure has also proved to be appealing to customers with aspirations for a modern yet sympathetic building design.

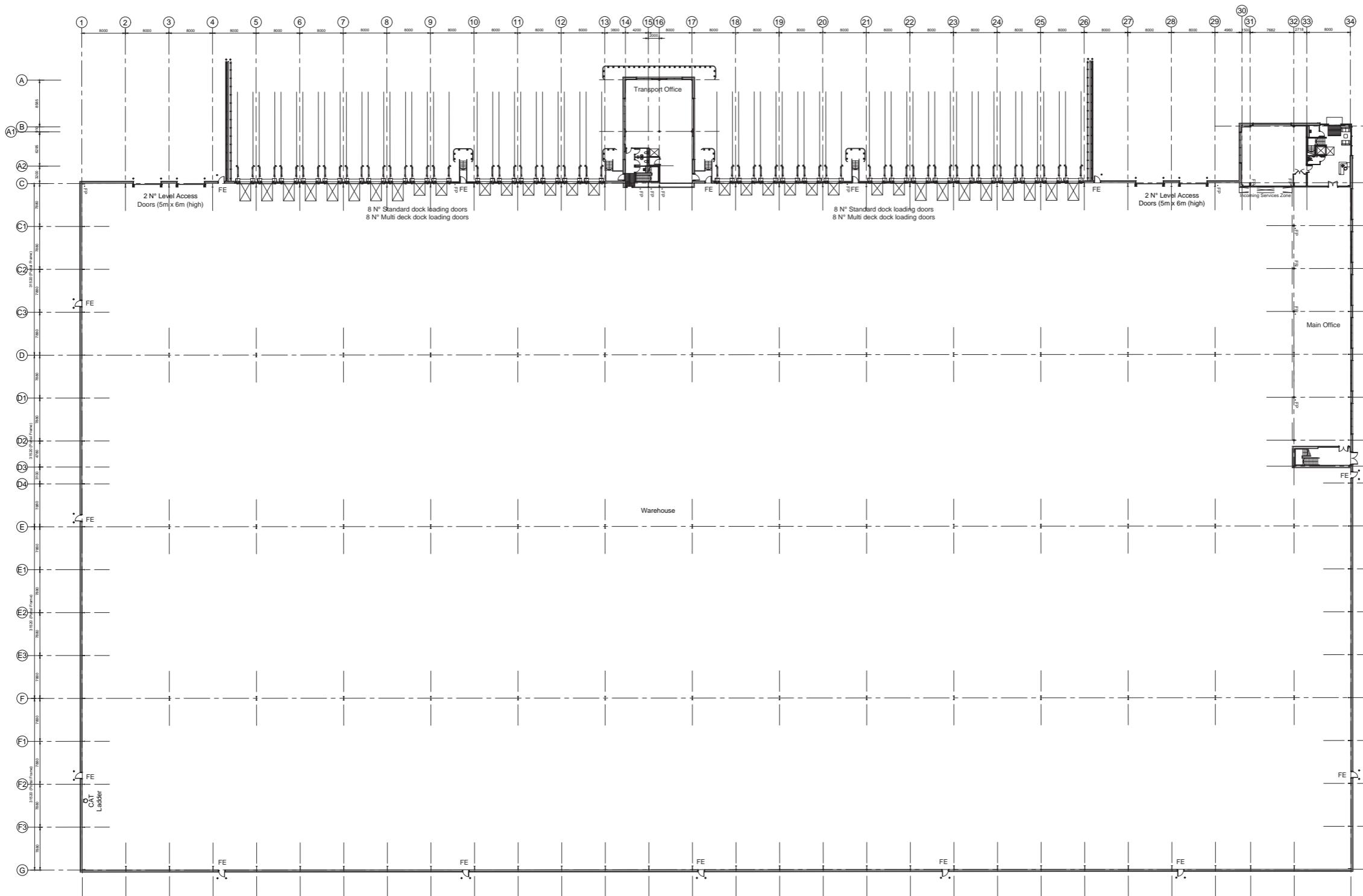


Example Of Griffon Roof Form - Exterior



Example Of Griffon Roof Form - Interior

05.5 WAREHOUSE PLAN



05| DEVELOPMENT PROPOSALS

05.6 BUILDING MATERIALS

The underlying principle of the proposed development is to provide building that offer architectural character, while adding quality and aesthetic enhancement to the immediate vicinity. The proposed unit represents a high-quality approach that integrates well with the surrounding context.

The building is designed to provide a positive aspect when viewed from its immediate surroundings and the office element used to punctuate the main entrance to the building and provide an attractive and varied elevation to that of the main building. The use of varying cladding profiles, colours and metallic coatings along with full height glazing raise the aesthetic quality and serve to break down the overall uniformity of the warehouse design whilst offering excellent longevity and durability.

The unit is a portal steel frame construction with curved roof and profiled metal external cladding.

The elevational treatment has been designed and broken down into panels to provide a visual relief. The longer warehouse elevations reflect a 'bar code' appearance to break down their visual appearance.

The office element is clad in a 300mm microrib metal panel creating a cladding surface which varies to the warehouse. This creates a clear division between the two building uses whilst harmonising the two textures with similar cladding tones.

The external dock pods and personnel doors are all coordinated to match the colour of the surrounding cladding panels, unifying the scheme, while the green accent colour to the flashings on the main office, adds visual interest as well as creating a distinctive feature.

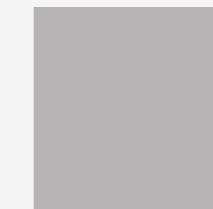


North Elevation

- ① Differing cladding materials to add visual interest and break up the visual building massing.
- ② Use of horizontal cladding to accentuate the linear form of the warehouse to lower the perceived height of the building.
- ③ Varied use of elevational treatment to identify key areas and uses (i.e. office entrance)
- ④ The use of glazing to add transparency to the facade and offer natural surveillance.



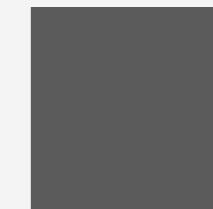
Sirius - Silver Metallic
(RAL 9006)



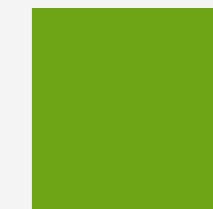
Goosewing Grey
(RAL 7038)



Slate Grey
(RAL 7012)

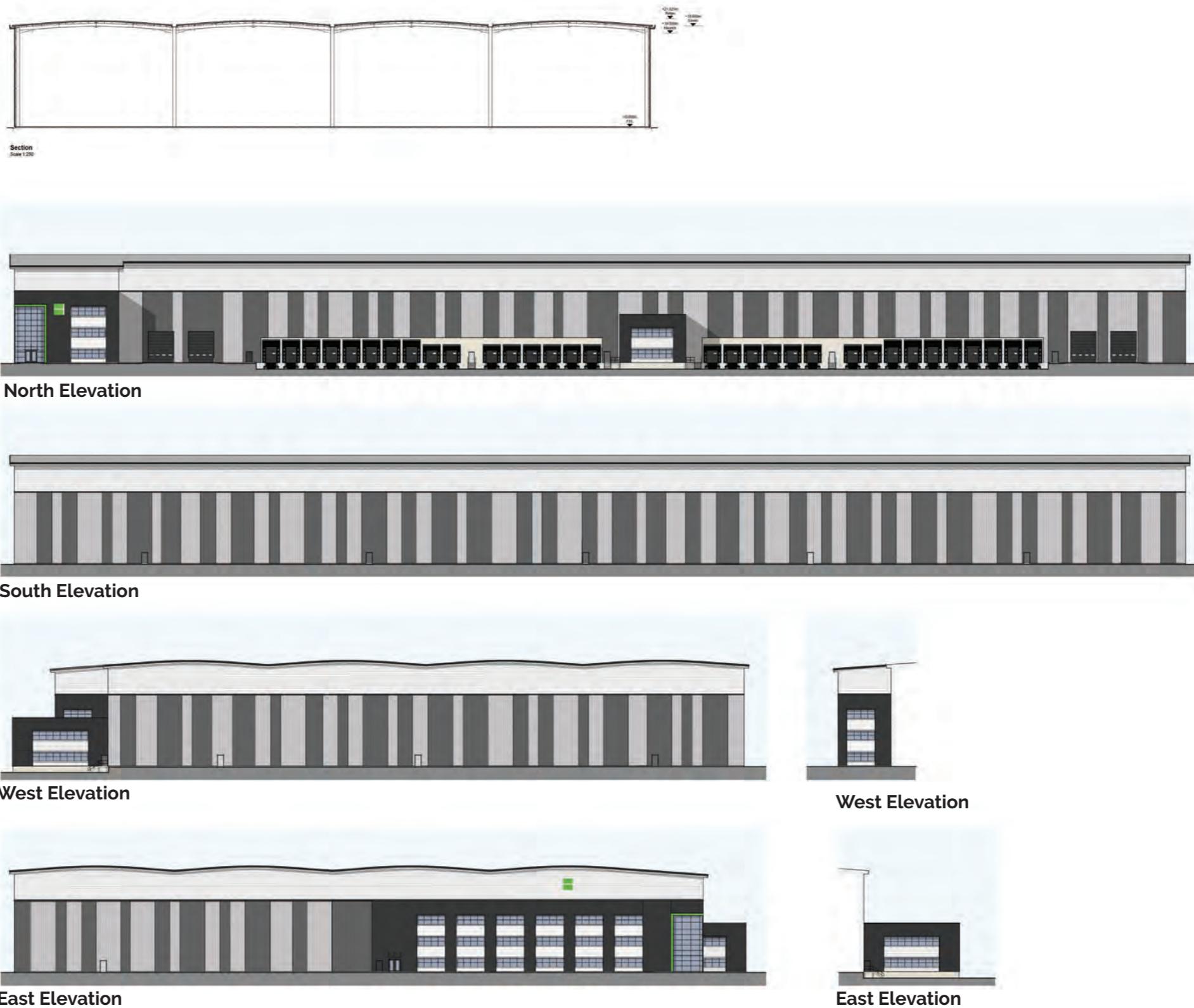


Anthracite
(RAL 7016)



Green
(Pantone 369)

05.7 BUILDING ELEVATIONS



05| DEVELOPMENT PROPOSALS

05.8 AERIAL VIEW FROM NORTH EAST



05.9 PERSPECTIVE VIEW



Perspective View

05| DEVELOPMENT PROPOSALS

05.10 LANDSCAPING STRATEGY

This section of the report relates to landscape design and covers roadside infrastructure landscaping, plot landscaping, hard landscaping and boundary treatments.

Site Constraints

Due to the nature of the site and its previous quarry use the ground conditions for the development requires all hardstanding, including building area to be piled with a suspended concrete slab above. As a consequence this constraint restricts the extent of additional landscaping that can be provided within the site.

Boundary Treatment

The landscaping to the perimeter of the site is the current vegetation which will be retained to mitigate visual impact on surroundings and soften boundary conditions. Low maintenance shrubs with amenity / wildflower grass seeding up to the cliff face creating a green corridor. Vehicular and pedestrian entrances to the site from the adopted highway shall remain clear and unobstructed by planting. To assist with the noise mitigation from the service yard, in addition to an acoustic fence, a landscaping bund will be incorporated to the North Western boundary with feathered tree planting.

Plot Landscaping

Due to the nature of the development, as outlined in the site constraints above, and the SSSI cliff faces the proposed plot landscaping has had careful consideration. Consequently this is led the landscaping design to be predominately limited to grass variations.

The detailed individual planting areas are described in section 05.11.

Hard Landscaping

The hard landscaping within the site will provide safe and convenient access for all users of the site including employees and visitors, ensuring good connections beyond the site.

Due to the site being predominantly hard landscaping, the following provides a breakdown of key design objectives for the hard landscaped areas within the site:

Cycle Parking

Cycle parking should be provided within the development and should reflect the recommendations of the Travel Plan.

Car Park - EV Charging & Car Sharing

The car park areas will be constructed in a mix of coloured macadam, red to parking bays and black to circulation, providing clear and concise division.

Parking for cars will be 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 these areas is to be achieved, where applicable, with 2m wide paths leading pedestrians from the car park to the unit entrances. Electric vehicle charging bollards are to be installed to designated car park spaces with ducting provisions installed to all car and HGV parking spaces, allowing future EV installation.

Dedicated car sharing spaces have been allocated to help promote a sustainable travel to and from work.

Pathways

A 2m wide footpath / cycleway from the North East will give access into the development from a proposed access off Stonehouse lane roundabout. This route will link into the on-site infrastructure road, all of which accommodate footpath / cycleway as required. Carefully designed directional street lighting during hours of darkness will help to provide a safe and secure environment for the pedestrian.

The footpath / cycleway will lead through the car park to main office entrance. Tactile paving and dropped kerbs will be provided at all road junctions, with further paving extended around buildings for escape routes and general cleaning and maintenance..

Roads

Access to the site will via Stonehouse lane. The entrance into the site will be designed to accommodate vehicle queuing, with use of pull in lanes and a vehicle roundabout if a wrong turn is made. This will help to manage and contain the flow of traffic both into the site and back out onto the road.

HGV Service Yards

A concrete service yard will be formed on one side of the warehouse building to allow sufficient circulation for HGV parking and loading for the required number of loading doors. The HGV parking bays will allow for overnight parking if the occupant operates a 24-hour building use.

The service yards will be set out with a depth sufficient 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.

The development will require building and column mounted external LED lighting which will be carefully designed to comply with local and statutory requirements.



Typical Pathway Surfacing



Typical HGV Service Yards Surfacing



Typical Car Park Surfacing

05.11 LANDSCAPING PROPOSAL

The landscape proposals drawings have been developed following review of background planning information within an Environmental Statement Addendum prepared by FPCR in relation to Ecology, Landscape and Visual Impact Assessment dated December 2017.

Landscape design principles follow this document and further liaison with FPCR has taken place to ensure recommendations are reflected in the landscape proposals drawings.

Landscape design objectives

- Respect the existing landscape character and features of interest, within and surrounding the site.
- Conserve and enhance existing landscape areas, features and planting as a structuring part of the Landscape Framework Proposals.
- Create a high quality and robust new Landscape Framework, including significant structure planting, hedgerows, other habitats and open space.
- Improve the overall contribution of the site in landscape terms to the character and appearance of the immediately surrounding area; including for positively contributing to the relevant Green Infrastructure Strategies and / or plans.
- Seek to minimise any potential negative landscape or visual effects arising from the proposed development, through the application of best practice principles and careful attention to design through all stages of the development process.
- Adopt specific landscape measures to mitigate and minimise any potential negative landscape, visual or related environmental effects.

Design and mitigation measures

- Conservation of existing mature and dense vegetation occupying the steep slopes and cliff faces around the southern and western sides.
- Retention and incorporation of exposed quarry slopes and cliff faces (around eastern side) as part of the landscape framework. This has involved consideration of how the necessary infilling proposals could be assimilated with the existing quarry sides.
- Enhance and establish a consistent and suitable strong landscape perimeter to the site as the main influence on people's impression of the sites landscape. This should be combined with a comprehensive approach to the subsequent management of the sites landscape.
- Attention to filtering, screening and even framing of views towards the development.

Summary of landscape proposals

Existing dense vegetation is retained and conserved around the southern and western sides of the quarry which provides a strong backdrop to the built development. New native structure planting is proposed in the north-west portion of the boundary landscape where levels between the service yard and existing levels around the boundary necessitate filling, and landscape bunding is to be implemented to mitigate views into the service yard and operational areas of the proposed development. The inner face of the bund will be seeded with MG5 species rich grassland up to the back of the service yard.

The majority of the northern landscape boundary existing vegetation of retained upon the upper level of the cliff and the intervening space between the northern edge of the service yard and cliff face will be filled and seeded with MG5 species rich grassland mix in line with recommendations by FPCR Ecologists, along with the spaces between the cliff faces and car park along the eastern boundary and also along the southern boundary of the car park and fire track.

The north-east portion of the landscape boundary will be planted with native thicket planting, supplemented with Extra Heavy Standard tree planting to define the entrance to the development and mitigate views into the site from Arterial Road (A1306) in the vicinity of the Premier Inn Hotel. Existing vegetation is retained along the upper level of the cliff face along the eastern boundary and this will be supplemented with infill thicket planting adjacent to the site access.

The inner perimeter of car park areas will be surfaced with a 1m gravel margin to house ducting/ services and the southern margin of the fire track around the building will be fringed with flowering lawn mixture to provide species variety biodiversity in accordance with Ecologist recommendations.

The eastern embankment of the attenuation pond will be seeded with MG5 species rich grassland and the waterline supplemented with a pond edge mixture containing aquatic species and the western embankment will be surfaced with a drainage blanket of gravel to Engineers specification to enable percolation of water into the adjacent cliff permeable rocks during flood conditions.

A staff seating area and wellbeing running track to Architects specification is located along the southern and western elevation of the building.

The landscape areas will be maintained to promote ecological biodiversity and over time as the landscape matures the proposed landscape scheme will help assimilate the building and development into its surroundings.

05| DEVELOPMENT PROPOSALS

05.12 ESTATE MANAGEMENT

General

An Estate Management Company would be established by Goodman, the long term owner, in order to manage the development. The development would be maintained for the benefit of the occupiers and visitors to the site and allow access to the SSSI chalk walls and associated gravels. This type of management structure would create and maintain a first class environment for both the occupiers and visitors from first occupation throughout the life of the development.

The Estate Management Company would compile rules designed to manage the development as a safe and pleasant environment. Reoccupiers and contractors would be required to take appropriate steps in order to ensure that their staff, agents and visitors observe these rules which will cover topics such as road safety, fire precaution, security, refuse collection, environmental quality and signage. The Estate Management Company would also produce an Occupier's Guide, which would include information relating to the day to day running of the development (for example useful contacts and telephone numbers).

Funding of the Estate Management Company and the services that it provides will be provided by an estate service charge.

05.13 LIGHTING DESIGN PRINCIPLES

General

Lighting will operate in all external areas in order to provide a safe and secure environment for all users and visitors after dark. It will be designed to minimise light pollution and optimise energy use and emphasis will be placed on achieving good uniformity of light distribution. Lighting will generally comply with the recommended limitations for Environmental Zone E2 as set out in Guidance Notes for the Reduction of Obtrusive Light (Guidance Note 01, Institution of Lighting Professionals, 2011).

Luminaries (light fittings) will be of the LED directional type that emit light downwards. They will be mounted on buildings and standard height lighting columns will be arranged to maximise the amount of light reaching trafficked hard surfacing. There will be no upwards emitted light, no glare and negligible light spill

Service Yards and Parking Areas

Service yards and parking areas will be lit by luminaries mounted on buildings and lighting columns up to twelve metres in height. The lighting will comply with the recommendations given in BS EN 12464 'Light and lighting - Lighting of work places - Part 2: Outdoor work places' and the target illuminance will be an 30 lux average for service yards, and 15 lux average for car parks.

Entrances to buildings and loading/lorry dock areas will be illuminated locally to a higher 50 lux average, in order to provide functional and safe environment for pedestrians, lorry movements and loading activities. Perimeters is to be 5 lux average.



Simple lighting solution to match the clean lines of the buildings.

05.14 CAR PARKING PROVISIONS

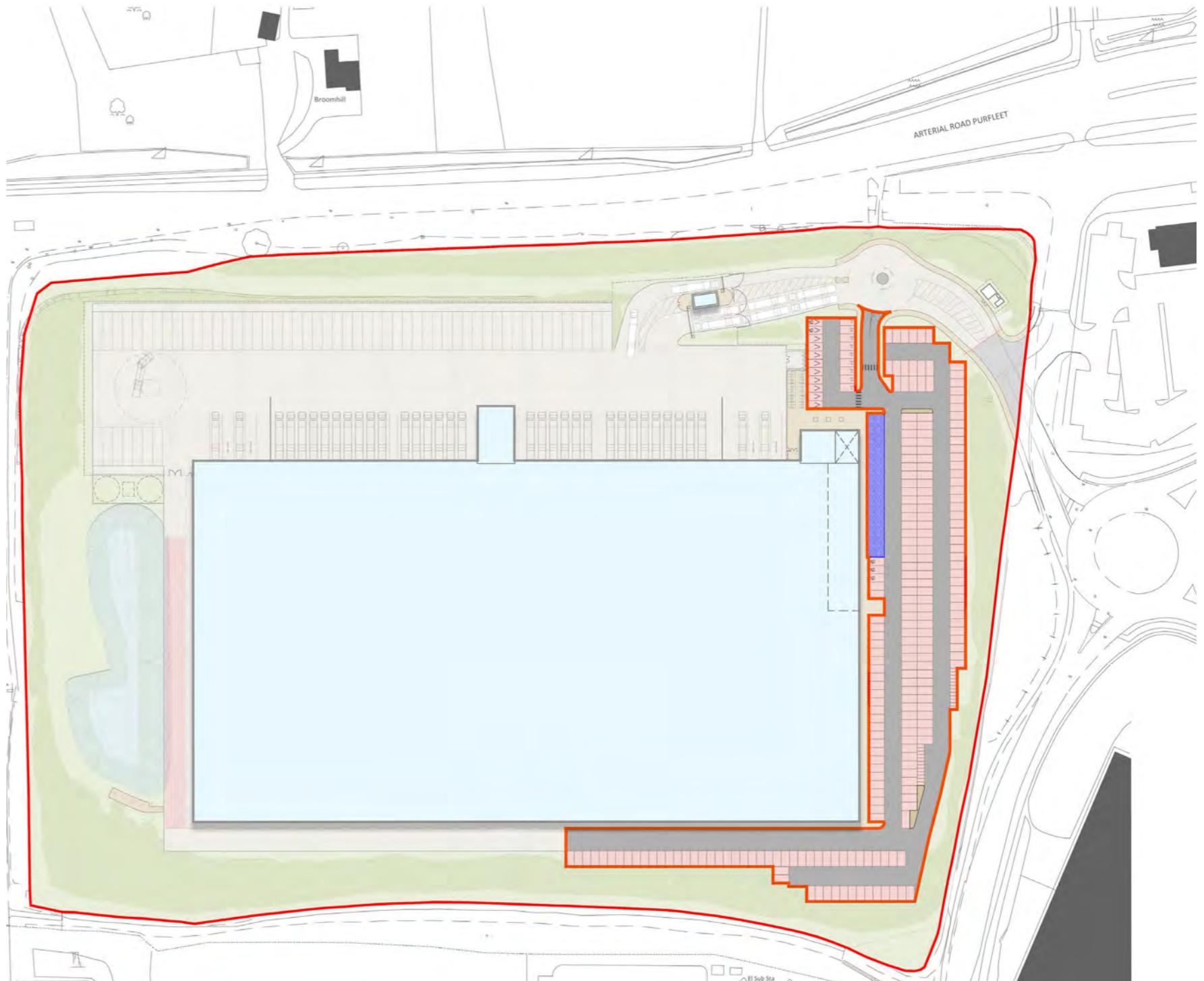
Unit 1 Car Parking Provisions

263 no. spaces (including 14 no. accessible)

Key



Accessible parking spaces (5% allocation)



05| DEVELOPMENT PROPOSALS

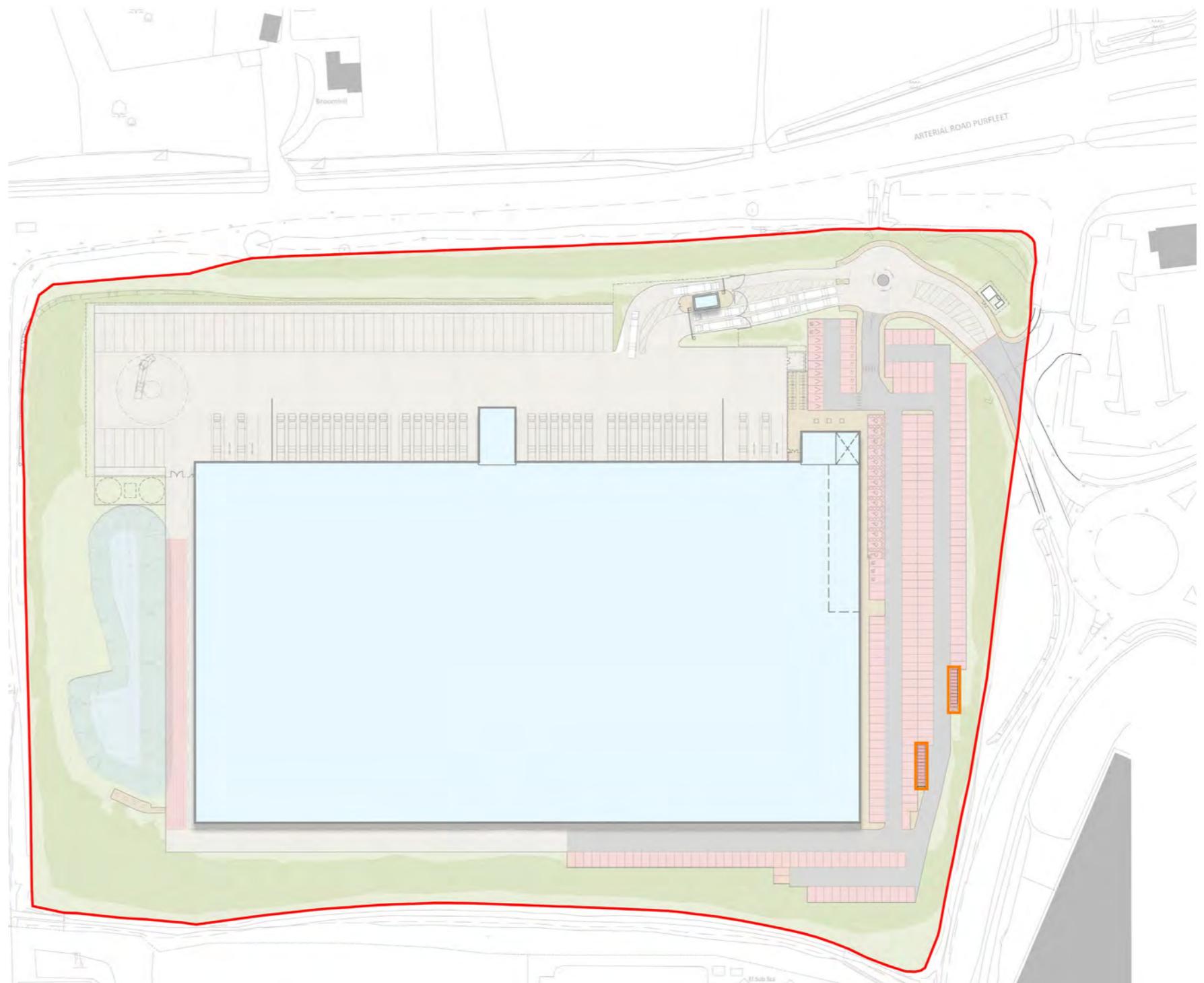
05.15 MOTORCYCLE PARKING PROVISIONS

Unit 1 Motorcycle Parking Provisions

24 no. spaces

Key

 Motorcycle Parking Locations



05.16 CYCLE PARKING PROVISION



Typical covered cycle shelter for 10 no. bicycles

Cycle Provisions
60 no. spaces

Key
■ Cycle Shelter Locations



05| DEVELOPMENT PROPOSALS

05.17 WASTE & RECYCLING MANAGEMENT STRATEGY

Introduction

This waste audit statement deals with likely construction and demolition waste, whilst anticipating likely operational waste streams, which in turn may be more quantifiable at the point that specific occupiers are identified.

In due course discussions with the Environment Agency and Local Authority would be welcome, to discuss scheme specific waste management in more detail.

Construction Waste & Recycling

The proposed site plan and elevations describe portal frame construction with CA built-up cladding to external walls and roof, creating a sustainable, carbon neutral envelope. The primary and secondary steelwork within this type of construction is manufactured to measure, and so does not result in a large quantity of waste.

The wall cladding is shown as being built-up cladding. This type of cladding is made up of inner and outer cladding sheets, sandwiching a layer of non-combustible insulation. Given the relatively large elevational plains, this type of façade treatment is very efficient and produces minimal waste. The roof is currently indicated as built-up cladding with a curved "Griffin" apex. This apex works to predefined dimensions and so is very efficient, whilst the remaining roof slopes follow the same principles as the built-up wall cladding.

All externals are expected to be constructed predominantly with concrete, and as such this material is readily quantifiable, and therefore produces minimal construction waste. Dock faces to yards, site retaining walls and internal stairs will also be constructed from precast concrete, which again minimises anticipated construction waste.

Remaining construction materials will be relatively low in terms of relative quantities / volumes, but will consist of tarmac, plasterboard and timber. The tarmac elements are as quantifiable as concrete (and are therefore subject to minimal waste), whilst plasterboard aspects will be designed to suit modular sheet sizes where possible, and the majority of timber will be obtained from sustainable sources and be recycled where possible and pragmatic.

Any eventually appointed contractor will be required to provide a details of construction waste (including the training of site staff regarding waste management), which will be done as part of their own internal auditing and considerations relating to considerate contractor schemes. Similarly the materials selected by the eventually appointed contractor will include materials / products which contain recycled content, segregated and smart waste.

Should demolition be a consideration, the fabric of the buildings and site will be largely recyclable, and contain no hazardous material. Steelwork and steel coated cladding are predominantly recyclable, with built-up cladding currently approximately 80% recyclable and 15% reused.

Operational Waste & Recycling

As is noted in the introduction above, there are currently no known building end-users involved in this application, and so any operational waste is anticipated only, rather than specifically quantifiable.

Typical waste streams for developments such as those within this application, include the following: Paper, Plastics, Metal, Glass, Organic and Other. Some of these waste types may be grouped together depending on local waste collectors preferences and limitations, but without end-users, we can allow make provision for typical volumes with an element of waste stream separation. The masterplan includes an external bin store for each of the three buildings shown. These bin stores are currently shown as 5m x 2.8m on plan, which is large enough to house between three and six 1100 litre wheelie bins; which is anticipated as being sufficient to accommodate the majority of waste streams and waste volumes. These bin stores are shown in areas accessible by refuge collection vehicles, whilst being located relatively discreetly from an overall aesthetic consideration.

Given the size of unit indicated on the site plan, the waste volumes could significantly differ depending on the precise unit operations. With this and the unknowns relating to specifically generated waste streams, a more comprehensive operational waste audit will be carried out when end-users are known.

Future Demolition Waste & Recycling

The proposed scheme would be designed for a minimum life expectancy of 25 years, but in reality, this figure would more likely be 35 years. As such, the materials contained within the scheme, will in due course be designed to provide sufficient robustness and building efficiency for this period.



Typical 1100L refuse and recycling bins



Typical timber bin store design



Typical timber bin store design



Key

■ Bin Storage Locations

06 ACCESS



06 | ACCESS

06.1 PEDESTRIAN AND CYCLE ACCESS

A 2m wide pedestrian route from the site entrance off a new roundabout off Stonehouse Lane. This new route will link into the existing infrastructure roads at the site entrance, which will accommodate footpaths and cycleways as required. Lighting from existing street lamps during hours of darkness will help to provide a safe and secure environment for pedestrians and cyclists.

Cyclists will be entering the site off Stonehouse Lane. There are many designated cycle routes running up to the development. These are a mixture of traffic free routes; on a road cycle lanes and cycle routes which can be accessed from the local links. There are two national cycle routes which are 13 and 137 located near the site. Route 13 runs to the South West of the site and route 137 runs to the North East, with our site located between the two.

Pedestrians will enter the site via the existing footpath connection. Footpaths, as previously discussed, lead from the car park to the main entrance of each building. Tactile paving and dropped kerbs will be provided at all road junctions, with further paving extended around the office and warehouse perimeter. Cyclists will enter site off Stonehouse Lane.

The development will be laid out to achieve accessibility for disabled occupants. All accessible car-parking bays will be located as close to the main building entrance as possible, with cycle shelters providing security and protection for bicycles. Safe pedestrian routes from these shelters will connect to the building. All levels within the car park will have a gradient of less than 1:25, enabling wheelchair access and ambulant disabled to access the site without difficulty.

The main entrance will be 'wheelchair friendly' level entry, with automatic or manual opening doors. The doors will meet all current Building Regulations Part M requirements, with full height tubular steel handles for ease of opening. The force required to operate the doors will be below the maximum force recommended in the Building Regulations, and the effective opening width of each leaf will be designed to be more than 800mm.

The building has been designed in accordance with Approved Document M.

06.2 PEDESTRIAN ACCESS - INTERNAL

Horizontal circulation

All doors will have a minimum clear opening of 800mm and an opening force below the recommended maximum. Door furniture will contrast with the background colour of the door leaf, and be of either lever type, at 1000mm above floor level, or pull handles, commencing at 1000mm above floor level. Doors in corridors will be fitted with vision panels, commencing at 500mm above floor level.

Warehouse

The warehouse area will be level throughout with clearly defined pedestrian routes. There will be fire exits within the warehouse area that are to have a level threshold between the building and pathway.

Toilets

Within the building, toilets and showers will be provided for male/female and disabled users.

Finishes

All floor finishes are to be of a non-slip type, with carpets being of a shallow dense pile, allowing easy passage for wheelchair users. The walls, wall coverings and paint finishes are to be suitably contrasting with the joinery of the doors and low surrounds. Where wall tiles are to be used, they are to have a satin finish to reduce glare.



Indicative Road and Pavement Image



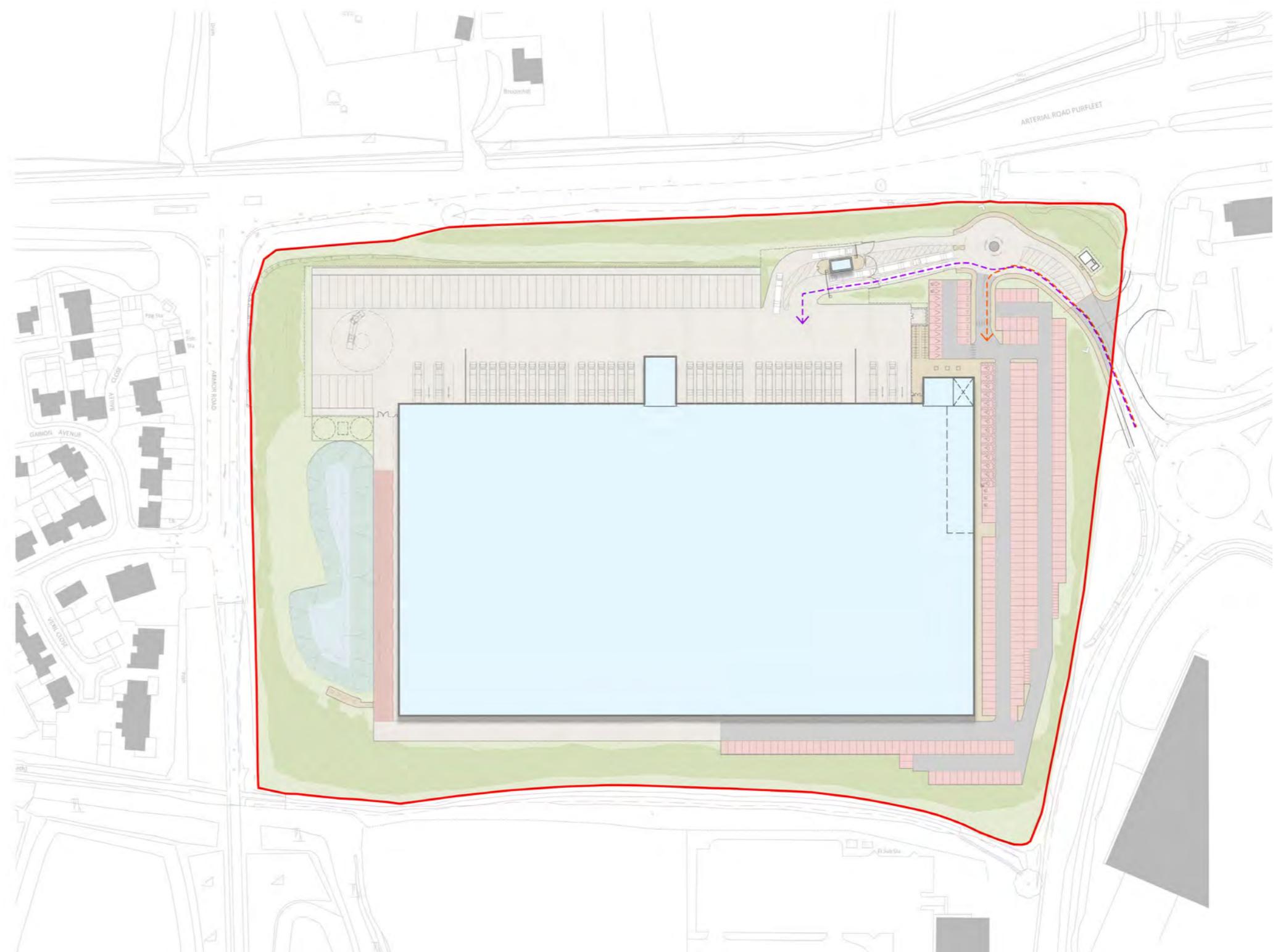
Illustrative Cycle path

06.3 VEHICLE ACCESS PLAN

Key

Car Access

HGV and Van Access Routes



06 | ACCESS

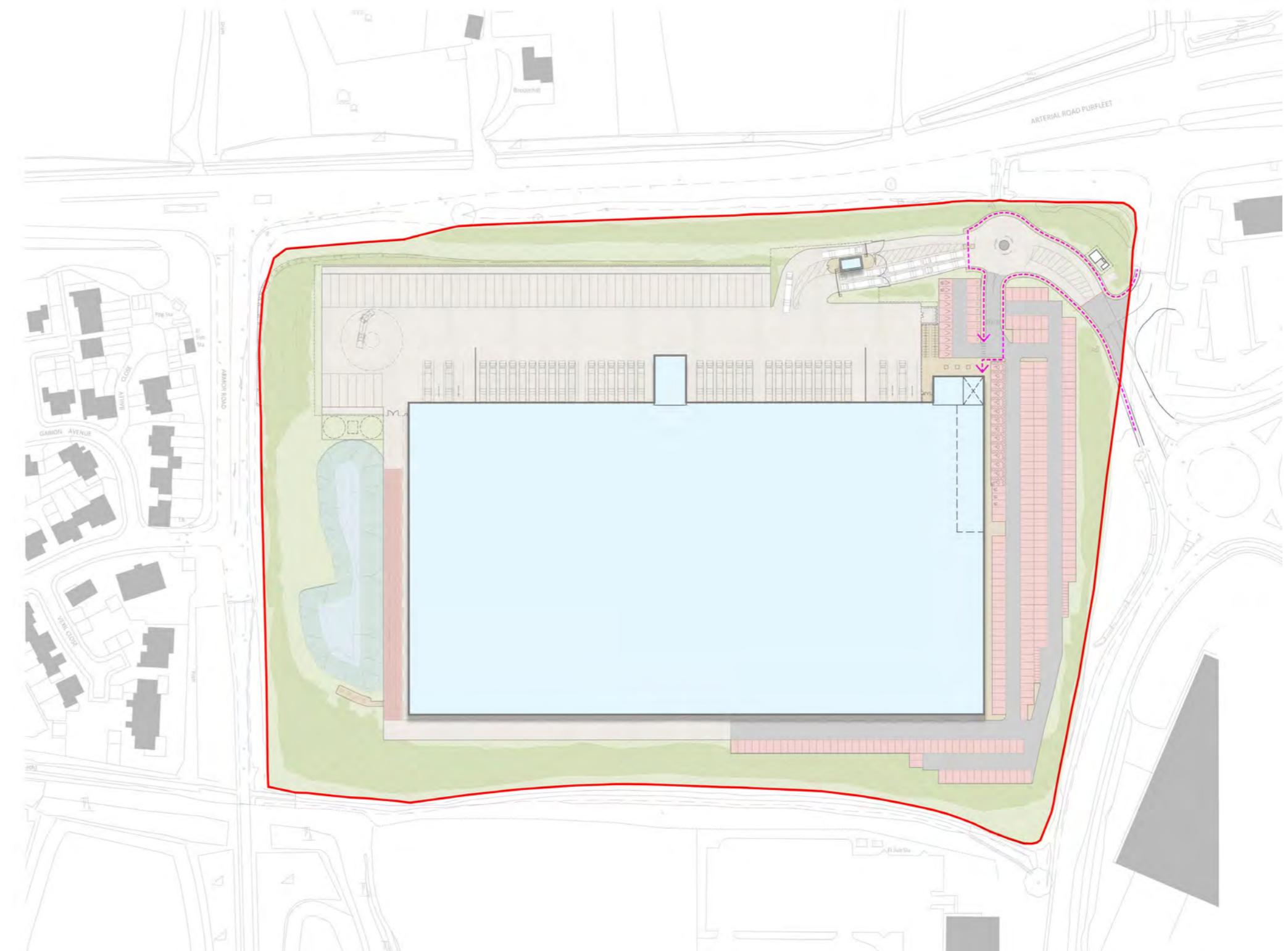
06.4 PEDESTRIAN ACCESS PLAN

Key

— — —
Pedestrian / Cycle Routes

Pedestrian cycle and footway routes in and around the site are designed to remain separate from motor vehicles. Where the route crosses a road, white lined crossing points will be provided to aid safety in and around site.

At present, the main walking and cycling routes through the area all run via Armor Road, which abuts the site's western boundary. It provides access to the Purfleet Bypass to the south and would therefore be suitable for use by employees to reach the shops, pubs, restaurants and other facilities located within the Town Centre. It also means that the Railway Station is readily accessible, allowing commuters to reach the site by Rail. The scheme therefore includes footway connections to the west to allow pedestrians and cyclists to leave and enter the site from this direction.



07 CRIME PREVENTION



07|CRIME PREVENTION

07.1 CRIME PREVENTION

Consideration has been given to the proposed site layout of the development to ensure personal safety. This relates not only to ensuring that the site layout of the development does not create an environment conducive to crime, but also to how occupiers and visitors to the site can move freely without risk of injury.

07.2 ACCESS AND MOVEMENT

Spaces and pedestrian routes are intended to be well defined with easy to recognise entrances; this provides convenient movement without compromising security. Proposed car parking is provided in the most prominent locations possible. This is outlined in more detail in section 4.0 and 5.0.

07.3 STRUCTURE

Natural surveillance will be a key factor in the final overall design of the site and the positioning overlooking onto the proposed car parking will offer a high degree of visual control. The buildings designs and layouts will be considered to minimise visual obstacles and eliminate places of concealment and any potential dark areas will be well lit.

07.4 PHYSICAL PROTECTION

Boundary protection will be provided to the service yard area, but will be considered to maximise natural surveillance. Fencing will be a 3m high timber acoustic fence which will run the perimeter of the service yard, and will also act as a security fence. All secure personnel gates will match the fencing specifications.



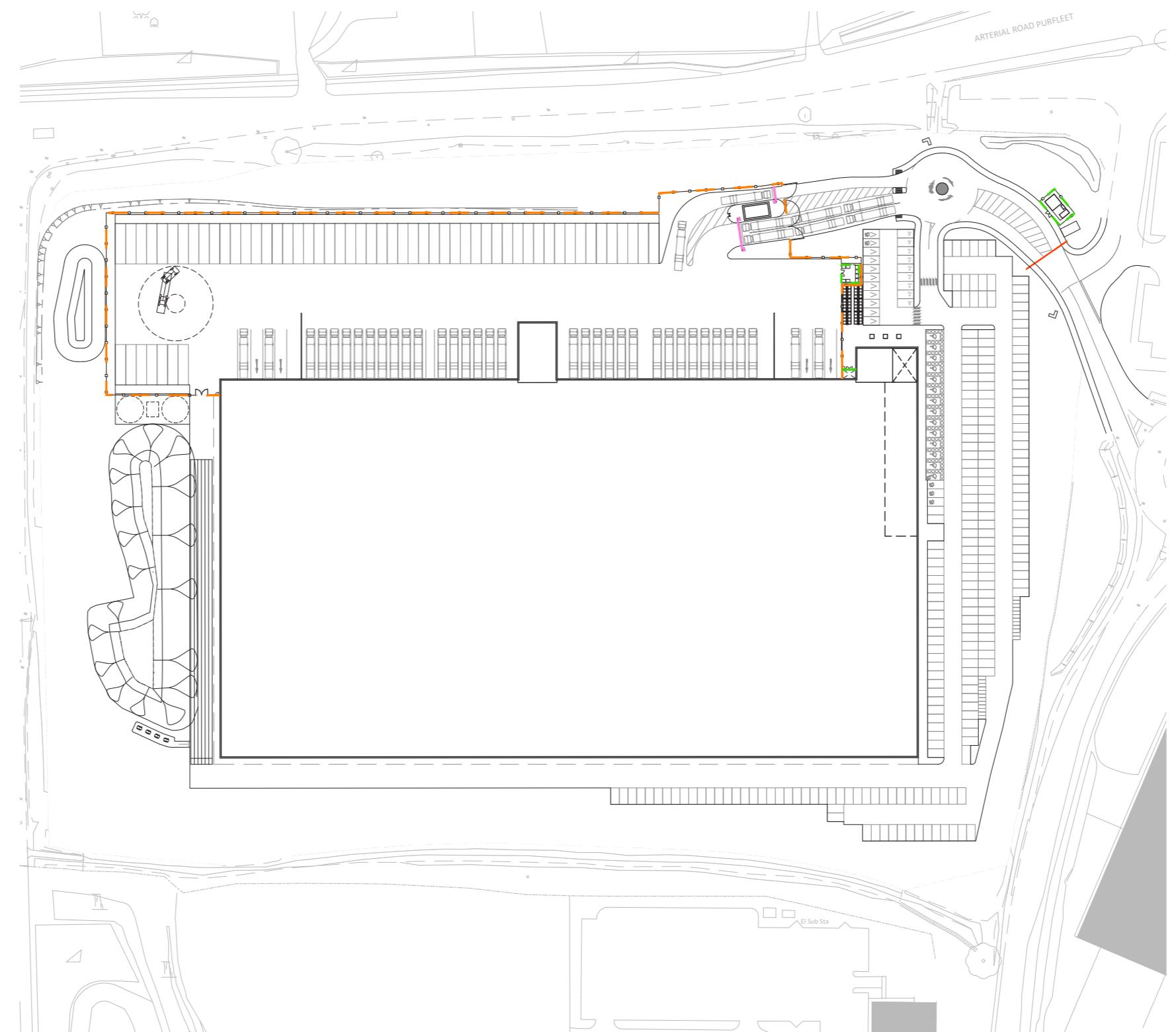
Indicative Acoustic Fencing - To service yard areas

Key

— 3m High Timber Acoustic Fence

- - - Automatic Barrier

— 2m High Timber Hit & Miss
Boarded Fence



08 SUSTAINABILITY



08|SUSTAINABILITY

08.1 SUSTAINABILITY

The issues in relation to sustainable design can be complex and drawing the right balance between all considerations is often difficult. Considering this type of development will in due course require an understanding of the occupiers operational requirements as the demands placed upon such buildings are not necessarily the same as for other types of development, such as domestic properties. However, the fundamental principles still apply, particularly in reducing the impact on the environment and the use of finite resources.

Energy Efficiency

In order to deliver environmentally responsible building stock, an exemplar approach is being proposed based on low energy design principles. In summary, this approach involves energy demand minimisation through effective building form and orientation, good envelope design and proficient use of services; such that the buildings themselves are being used as the primary environmental modifier.

The general construction design standards to be adopted must exceed the requirements of the current (2013 Edition) Part L Building Regulations which stipulate an improvement on the CO₂ emissions of an aggregated 9% against 2010 standards. The building envelopes will be designed to ensure that the fabric and form of the spaces encompasses low energy sustainability principles.

The design incorporates the following initiatives into the building: -

- 'A' rated EPC.
- BREEAM 'Excellent'.
- Carbon Neutral cladding envelope by CA Cladding.
- A highly insulated building envelope with the use of mineral wool insulation exceeding the Part L Building Regs requirements.
- 12-15% roof lights providing optimum natural light.
- Air tightness detailing resulting in excess of current building regulations.
- Low NO_x condensing boiler.
- Energy efficient passenger lift serving the offices.
- Water leak detection system.
- Carpet tiles with a carbon neutral footprint.
- Ceiling tiles with high percentage of recycled content.
- Sustainable Urban Drainage System and site pond.
- Solar thermal hot water.
- SolarWall® thermal heating fed back into the HVAC system.

- LED lighting to offices and external areas.
- Seasonal commissioning, maximising product life expectancy.
- Rainwater harvesting for grey water toilet flushing.
- Control panels and time clocks for M&E plant.
- Water saving spray taps within office accommodation.
- Dual flush WCs.
- Waterless urinals.
- Increased energy metering.
- Daylight saving control lighting to office area.
- Secure cycle storage promoting sustainable staff and visitor travel.
- Shower facilities for cyclists.
- Electric car charging points and ducting for future additional car and HGV charging points.
- Solar PV panels installed on the roof to meet a proportion of the initial electricity demand. The whole roof will be designed and constructed to be 'Solar Ready' to receive PV panels to suit an occupiers requirements.

Electric Car Charging Points

Thurrock Council encourage electric charging units to be considered within new developments. The unit will incorporate 6 no. dedicated parking spaces which electric chargers. Ducting provisions will be provided to allow for future installations of all car parking and HGV parking spaces as indicated on the following EV charging provision site plan.

Water Efficiency

There are various measures that will be incorporated to reduce water consumption and demand. The specification of water efficient appliances such as spray taps, low volume WC's and waterless urinals will assist.

The need to capture, store, filter and reuse rainfall is becoming increasingly more important. Rain water harvesting tanks will be incorporated into the design to be used for in various systems, including toilet flushing and potential on site irrigation.

Low and Zero Carbon (LZC) Technologies

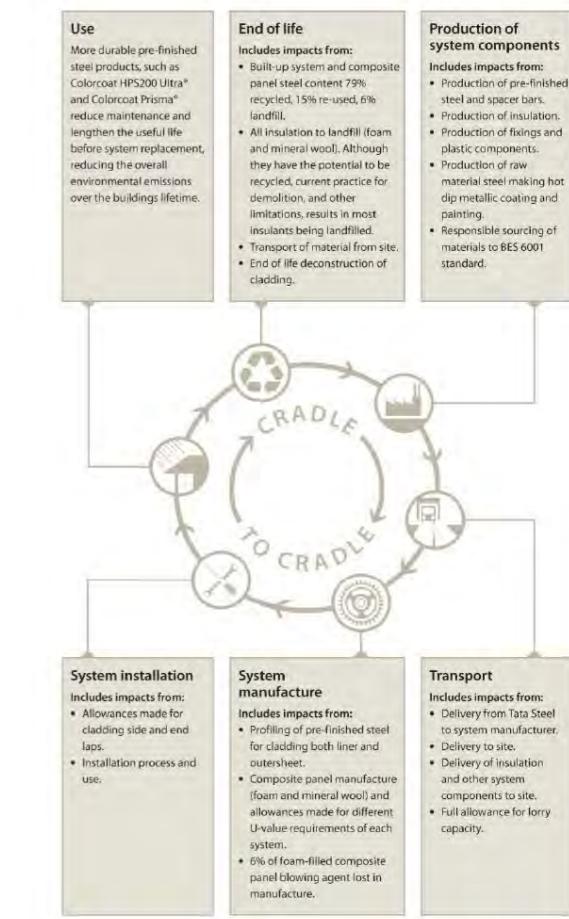
The roof structure will be designed to an enhanced specification capable of accommodating solar photovoltaic panels for self generation of electricity for use in the building.

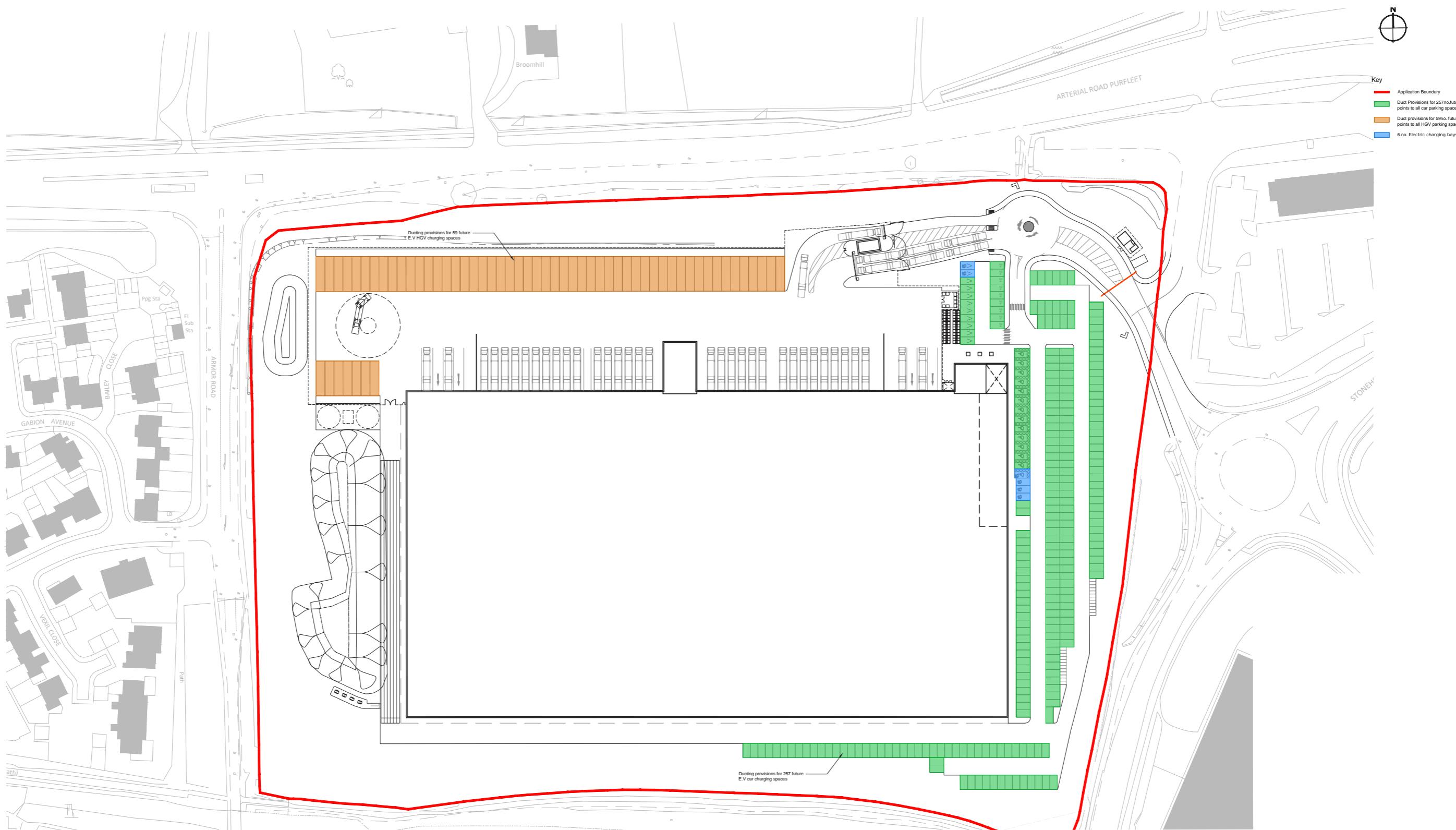
Solar thermal energy can be used to contribute towards space heating and hot water requirements. In the UK, most applications focus on hot water installation as the solar availability during the space heating season is limited. The systems use a heat collector, generally located at roof level on support frames, orientated in a southerly direction to maximise solar heat absorption.

As is noted elsewhere, the proposed scheme will include a robust waste management strategy.



SolarWall® example





09 SUMMARY



09|SUMMARY

09.1 SUMMARY

This planning application has been developed with due regard to the existing site that has helped to integrate the proposed scheme into the local context and surroundings.

This document seeks to demonstrate that the proposed development at Purfleet Commercial Park will result in a well-designed, high quality scheme with appropriate usage that is in keeping within the commercial and industrial context. It would provide an attractive, contemporary and coherent design that is fit for purpose and safe for all to use.

The development responds to the national and local planning policy requirements in respect of design and access including the aspirations set out in the Thurrock 'Core Strategy and Policies for Management of Development'.



Perspective View - North East



UMC Architects, Newark Beacon Innovation Centre,
Cafferata Way, Newark, Nottinghamshire NG24 2TN

o. +44 (0)1636 653027
f. +44 (0)1636 653010
e. info@umcarchitects.com

www.umcarchitects.com