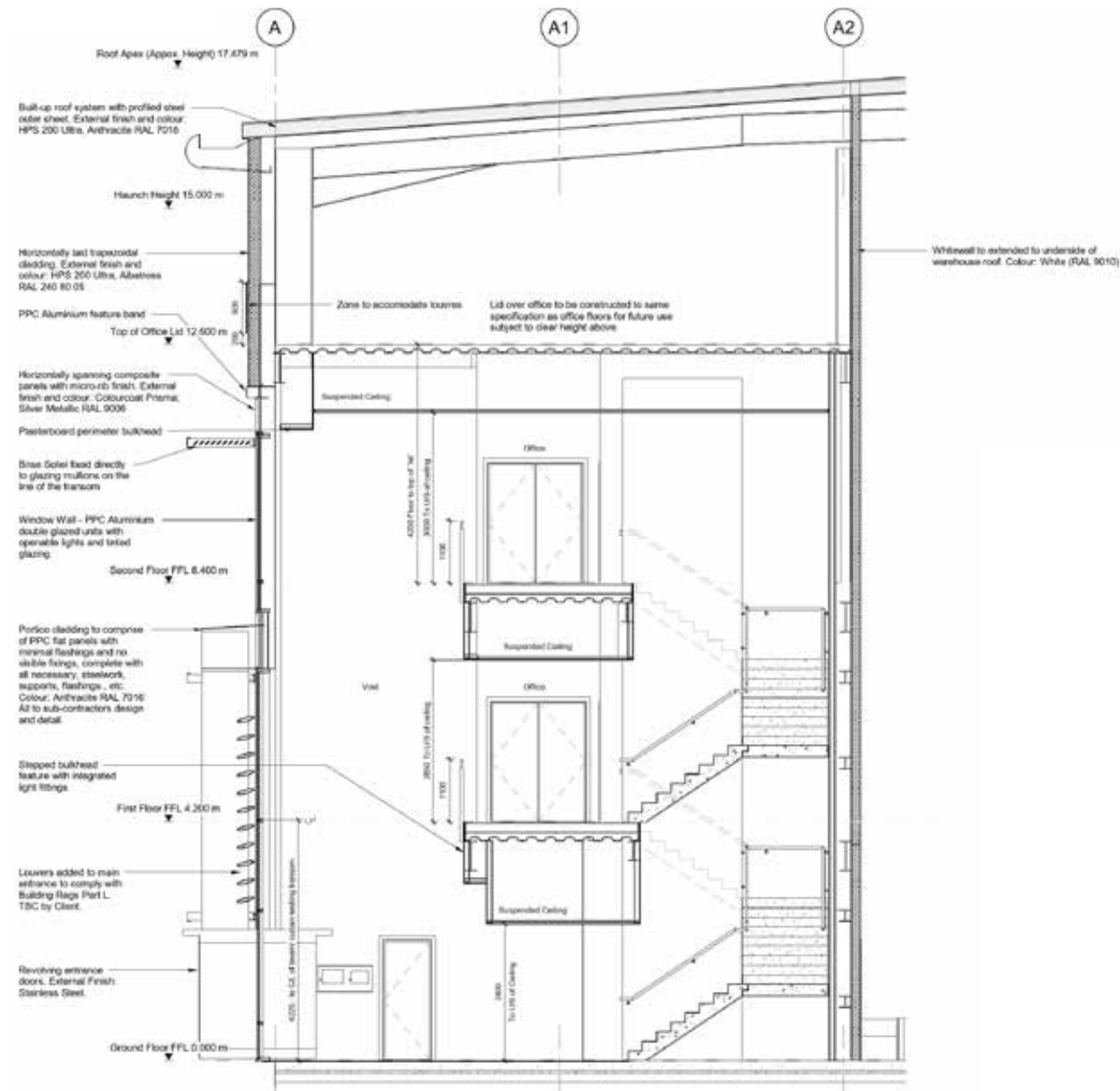


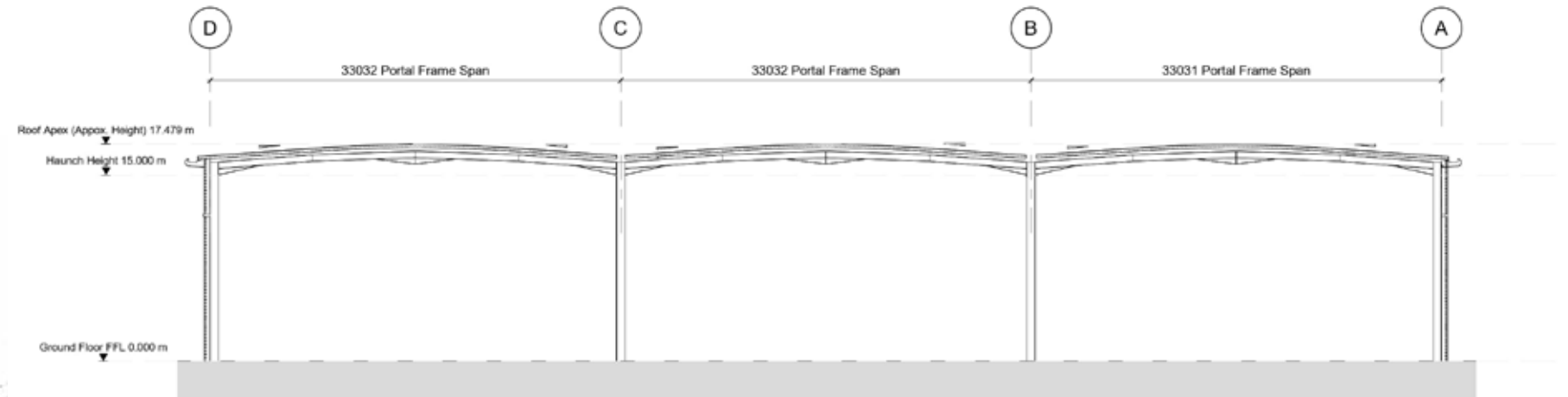
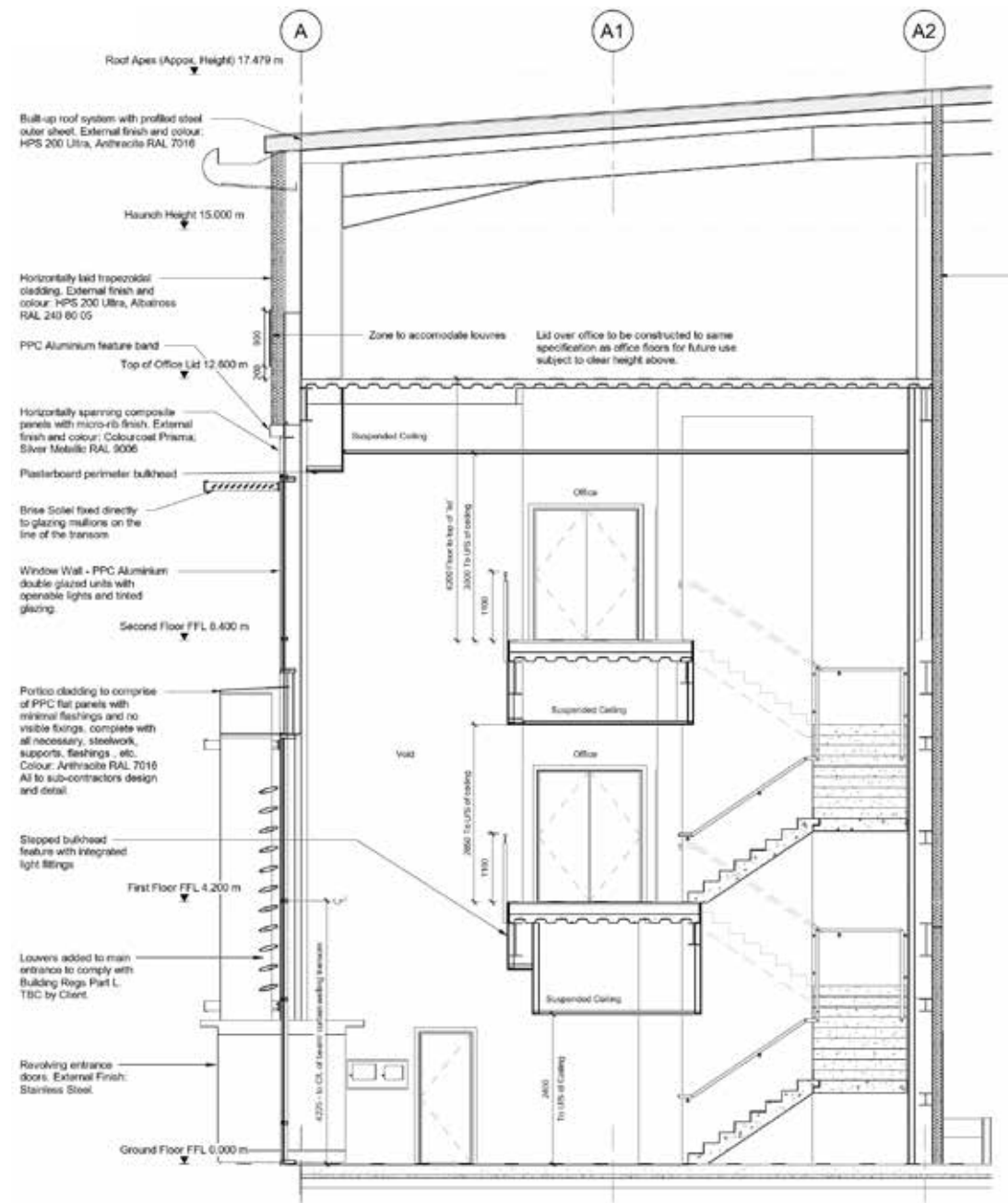
05 DEVELOPMENT PROPOSAL

05.17 UNIT 03 - SCALE, HEIGHT AND MASSING



05 DEVELOPMENT PROPOSAL

05.18 UNIT 04 - SCALE, HEIGHT AND MASSING



The proposal represents a positive use of the site on a scale that is comparable with other developments within the local vicinity.

The proposal creates large facades, so the design of the elevation treatment must incorporate features to reduce the perceived scale.

Buildings in this sector often have large critical internal heights to suit operational requirements, based on specific capacity / volumetric requirements and industry standard equipment and storage modules.

The heights of industrial / distribution buildings are generally dictated by the pallet racking heights within the building, which in turn are usually maximised to enable efficient storage volumetrics within a footprint. The footprint is usually determined by optimising portal frames.

Unit 04 proposes to have a clear internal height of **15.0m**, enabling the warehouse space requirements. This is in addition to 2 floors of office space and a two storey transport office. The building will have a built up barrel roof giving a maximum apex height of **17.479m**. This height is comparable to some of the buildings that sit in the immediate context.



06 ACCESS

06.1 PROPOSED VEHICULAR ACCESS

- Masterplan Boundary
- Application Boundary
- HGV Access
- Car Access / Cycle Access
- Emergency Vehicle Access
- Green Cycle/ Bridleway



VEHICULAR ACCESS

Vehicular access to the units will be via proposed new central service road which connects to Cronton Road.

There will be two separate car parks to the north and south of Unit 03 and a single car park to the south of Unit 04. The entrances to these can be accessed from the proposed road connecting to Cronton Road. HGV access to the unit can be accessed from the same road.

Car parking standards are appropriate for the use class in question. Provision has been made for covered secure cycle shelters stands to be located adjacent to the main office block.

Service yard areas will be formed in concrete surfacing, to provide a robust base for vehicle manoeuvring.

06 ACCESS

06.2 PROPOSED PEDESTRIAN AND CYCLE ACCESS

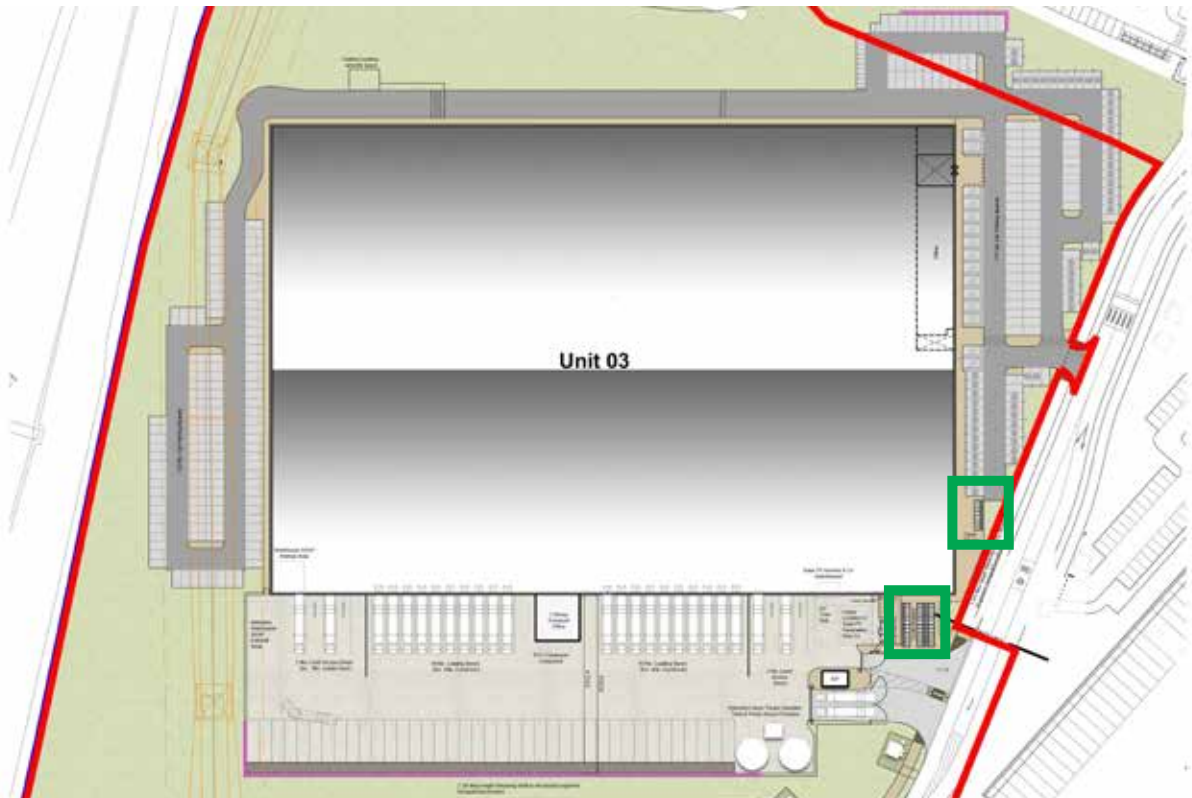
UNIT 03 - PEDESTRIAN AND CYCLE ACCESS

Footpaths will lead from the access road, via the car park, up to the office main entrances. Tactile paving and dropped kerbs will be provided at all road junctions, with further paving extended around offices and to the building perimeter.

Lighting by street lamps during hours of darkness will help to provide a safe and secure environment for the pedestrian / cyclist.

The development will be laid out to achieve accessibility for disabled occupants. All disabled car-parking bays are located as close to the main entrance as possible, with 10 cycle shelters (for 100 cycles) providing security and protection for bicycles. Safe pedestrian routes from these shelters will meet up with the route between car park and 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.

All main entrances into the unit 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.



Cycle Shelters
10 shelters for 100 cycles

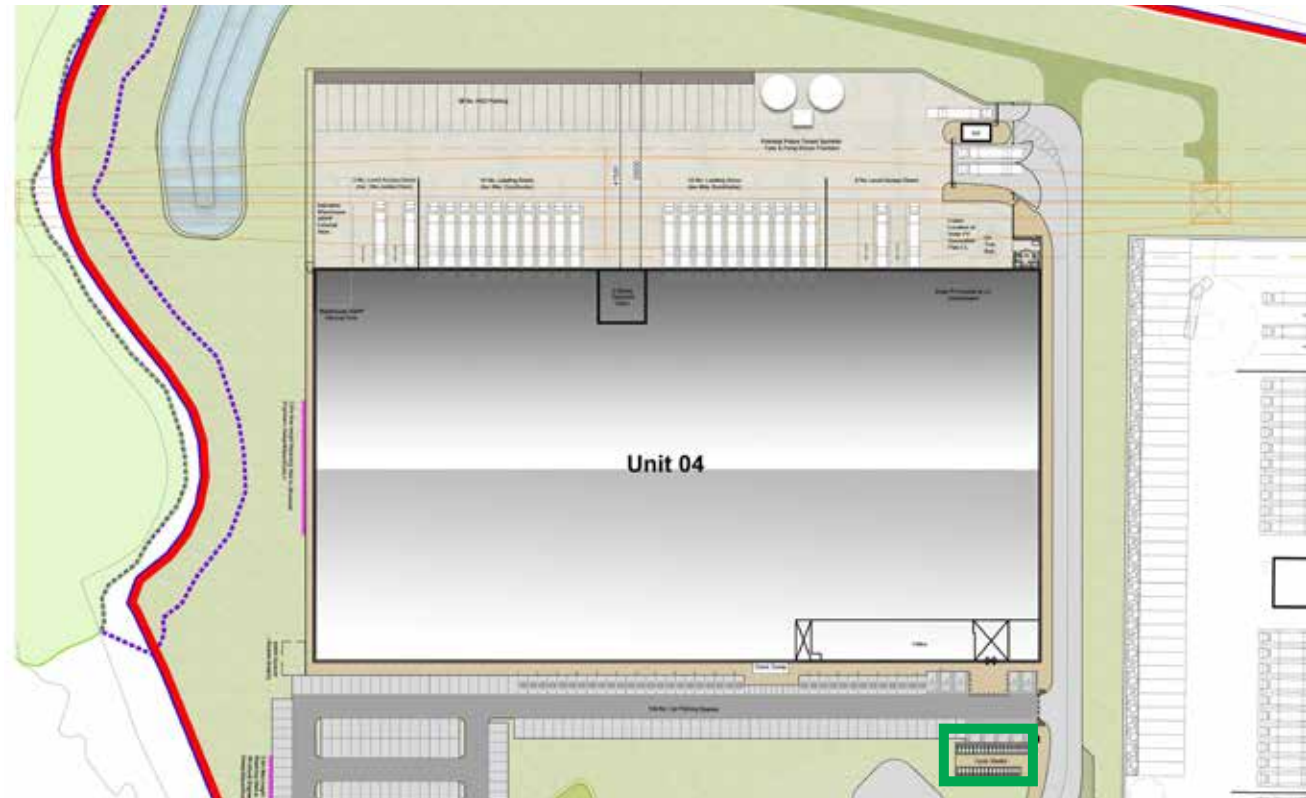
UNIT 04 - PEDESTRIAN AND CYCLE ACCESS

Footpaths will lead from the access road, via the car park, up to the office main entrances. Tactile paving and dropped kerbs will be provided at all road junctions, with further paving extended around offices and to the building perimeter.

Lighting by street lamps during hours of darkness will help to provide a safe and secure environment for the pedestrian / cyclist.

The development will be laid out to achieve accessibility for disabled occupants. All disabled car-parking bays are located as close to the main entrance as possible, with 8 cycle shelters (for 80 cycles) providing security and protection for bicycles. Safe pedestrian routes from these shelters will meet up with the route between car park and 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.

All main entrances into the unit 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.



Cycle Shelters
8 shelters for 80 cycles

06 ACCESS

06.3 PEDESTRIAN ACCESS - INTERNAL

Reception

The reception area of the main offices will be suitably sized to accommodate wheelchair users. They will include appropriate space and waiting zones. All floor finishes will be suitable for wheelchair access.

Horizontal circulation

Internal corridors will be a minimum of 1800mm wide at the pinch point. 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 area

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.

Vertical circulation

Stairs will provide vertical access around the offices, and a passenger lift will provide access to all floor levels. All staircases and lifts will be designed in accordance with Approved Document M, with recommendations including contrasting nosings, and treads/risers suitable for ambulant disabled members of staff or visitors. Any member of staff, or visitor, with a visual handicap would be actively managed within the building.

Toilets

On each floor of the office, toilets will be provided for both male and female users, with separate unisex disabled toilets provided for disabled users. In addition, at least one cubicle in each male and female WC will be provided for ambulant 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.

Means of escape

The needs of individual members of staff will be assessed using Personal Emergency Egress Plans and management arrangements introduced as necessary following appropriate risk assessments. Means of escape will be designed in accordance with Approved Document B.

07 SUSTAINABILITY AND CRIME PREVENTION



07 SUSTAINABILITY AND CRIME PREVENTION

07.1 CRIME PREVENTION

The building design and layout have been considered to minimise visual obstacles and eliminate places of concealment, and any potential dark areas will be well lit. Consideration has been given to the layout of the development to ensure personal safety. This relates not only to ensuring that the illustrative 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.

The site boundary is to be secured with perimeter fencing, both proposed and retained, with entrance gates for vehicles and pedestrians allowing movement in and out of the site.

07.2 ACCESS AND MOVEMENT

Spaces and pedestrian routes are currently 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.

07.3 CAMERAS & CCTV

The design will principally focus on enhancing natural surveillance and not rely on cameras more than necessary; however, a CCTV system may be installed by the end user and could be used to enhance security on the site and aid the identification of criminals afterwards.

If a CCTV system is implemented, it is important that the system is designed by a specialist and encapsulates the main high risk areas and site pinch points of high traffic. The monitoring of the car park area may be assisted by a CCTV system as this is a larger area that is generally more difficult to observe.

The CCTV system will need to be designed in conjunction with the lighting design to avoid any unlit areas and any glare from the lighting source to the cameras. The system will need to incorporate robust anti-vandal fittings that can withstand attack, such as enclosures around the camera units, and secure fixings into the building structure or onto secure columns.

The image quality is important, with the ability to recall details of people's faces and vehicle number plates may be required therefore, careful consideration into the type of system installed will be needed. Attention into how the system will potentially be managed and monitored will also be required, whether a digital video recording system is needed, and to the timings of recording, quality, and format of the recordings will all be carefully considered.

07.4 LIGHTING

The design of the lighting system will be undertaken during the design process; the system will be designed by an appropriate electrical engineer and will be in accordance with BS 5489.

The position of lighting will be carefully considered, areas of natural surveillance will be lit evenly, creating a uniform light with minimal shadows over areas that are appropriate, such as walkways, access roads, and car parking area. The principle entrance of the plots and the building will be well illuminated to aid in way-finding and with natural surveillance.

The lux levels will be calculated by an engineer, and a lux plan will be developed that will indicate lux levels across the site with contour lines highlighting drop off. The Overall Uniformity of light will aim to achieve a rating of 0.4Uo and will not fall below 0.25Uo. This plan will be developed in conjunction with consultation with the CPDA.

Also taken into account will be colour rendering of the lighting fixtures, it is important to achieve a reasonable colour rendering in order to aid in identifying people or vehicles and create a safer feel to the site which benefits from good surveillance. There will be an aim to achieve a colour index rating of 60RA or above. All street lighting for both adopted highways and footpaths, private estate roads and footpaths and car parks will comply with BS 5489-1:2013.

Lighting will not be utilised in areas that are not appropriate, such as landscape areas or areas that are not intended for public use. This will help keep the impact the development will have on the environment to a minimum, also deter anyone from straying away from the designed traffic routes.

All lighting fixtures and fittings will be of a robust design and securely fixed to the building or stanchion posts, which in turn are securely fixed to a secure concrete base. The use of LED fittings within the lighting units will be promoted in order to reduce unnecessary light pollution and promote environmental sustainability.

07 SUSTAINABILITY AND CRIME PREVENTION

07.5 PHYSICAL PROTECTION

Relevant Key Design Principle

KDP3: Providing safe and convenient access for all users of the site including employees, suppliers or distributors, visitors and the local community, ensuring good connections beyond the site

Design Objectives

Consideration should be given to the layout of the development to ensure personal safety. This relates not only to ensuring that the 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.

Detailed Guidance

Security Fencing

Boundary protection around service yards will be 2.4m high paladin fencing, powder coated in green as specified on Page 11 of DALDG.

Timber Fencing

Traditional timber featherboard (closeboard) fencing system consisting of timber posts cast locally in to concrete foundations with horizontal rails (head, mid, base) clad with 100x22mm featherboard pales. 2.0 m high closeboard timber fencing to the full extent of the boundary adjacent to M62. Timber to be pressure treated, metal fixings to be stainless steel and galvanised.

Timber Knee High Rails

Timber Knee high Rails Fence to be installed around pond with demountable section for access.

Access and Movement

Spaces and pedestrian routes are to be well defined with easy to recognise entrances; this provides convenient movement without compromising security. Proposed car parking should be provided in the most prominent locations possible.

Natural Surveillance and Lighting

Natural surveillance should be a key factor in the overall design of the site. Offices should overlook car parking and public realm, allowing a high degree of visual control. The building designs and layouts aim to minimise visual obstacles and eliminate places of concealment and any potential dark areas must be well lit.

Cycle Store

To encourage staff to cycle to work, cycle store will be provided as a purpose built structure in metal work to be finished in Black as specified on Page 11 of DALDG.

Gate House/ Security Lodges

Designed as an integral part of the development to adhere to DALDG.



Paladin Fencing



Timber fencing to full extent of M62 - 2.0m High



Timber Knee high rails

07 SUSTAINABILITY AND CRIME PREVENTION

07.6 SUSTAINABILITY

This section sets out the main sustainable features relevant to the application and is restricted principally to the future buildings and the physical features of the site, rather than encompassing the wider sustainable development issues of the site location and its surrounding infrastructure.

The issues in relation to sustainable design can be complex and drawing the right balance between all considerations is often difficult. This type of development requires 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.

For a development such as this, the most significant impacts relate to material usage (principally for aggregates, concrete and steel) and the power consumed during its operation.

Elsewhere the scheme will focus on various aspects of sustainable design, potentially including all or some of the following:

BREEAM Certification

Unit 03 & 4 will be targeting BREEAM Excellent (2018) with an aim to achieve excellent. At outline planning application stage, a strategy has been developed to target Very Good certification with a preliminary score in excess of the 55% required. The exact BREEAM strategy and route to Excellent certification will be progressed further during detailed design.

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 (2021 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.

Facilitating electric vehicles

Active electric charging points will be provided within the car parks of each building to provide employees with the infrastructure to charge their EV's. The use of EVs (both cars and cycles) will also be encouraged via the sustainable travel plan to be developed as part of future reserved matters applications.

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 and low volume W/C's will assist. In addition to toilets, shower rooms with changing and locker areas will be provided within the main offices. These amenities will be available for all personnel based at the facility, thus providing for those who choose to cycle to work. Further considerations would include:

Waste Strategy

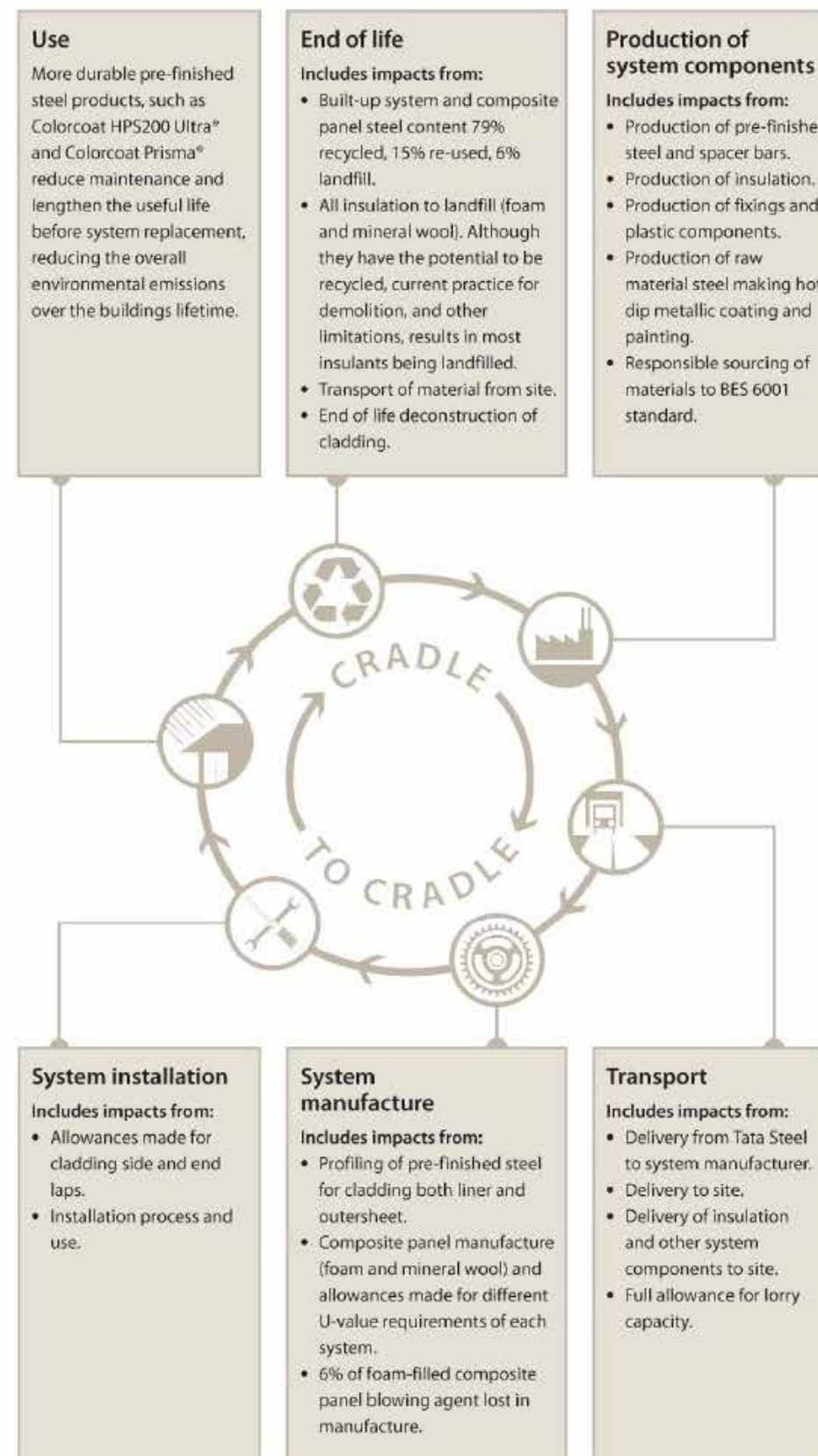
Dedicated areas for refuse will be provided to allow for adequate bin storage / compactors to suit the occupiers operations. The refuse area will not exceed 10m from the main footpath and sufficient turning areas will be provided for refuse vehicles.

Waste Management

The proposed development can provide for the careful and sustainable disposal of waste during and post construction. Modern methods of design and construction using pre-fabricated units will help to keep waste arising to a minimum. Post construction, the buildings will be provided with a dedicated area within the building for the provision of refuse and re-cycling facilities, tailored to operational requirements.

Net Carbon Zero

Tritax Symmetry Merseyside 1 Ltd. have announced that all their new developments within their portfolio will be constructed to net zero carbon in construction in line with the UK Green Building Council's (UKGBC) Net Zero Carbon Buildings Framework. By mitigating the embodied carbon generated from the development programme by funding high-quality, accredited and verified offset schemes. The Offset scheme selected is in line with the current principles set out in UKGBC's net zero framework. This is to enhance nature and wellbeing, as well as create a positive socio-economic impact in all the local communities in which the group assets are located.



08 LANDSCAPING



LANDSCAPING

08.1 PROPOSED LANDSCAPING

Planting will be utilised in the design to promote psychological barriers. The use of low level planting and shrubbery can also aid in way-finding to enhance pathways and traffic routes. Low level planting will also be utilised around the car park in order to deter criminal activity adjacent to vehicles.

No planting will be designed to impede the visible range between above 1m and below 2m, and the planting scheme will be designed in conjunction with the lighting system and potential CCTV system in order not to interfere with surveillance.

Introducing a good landscape design to the proposal incorporating an attractive and practical planting scheme will help to enhance the environment and create a better quality space.

Relevant Key Design Principle

KDP4: Maintaining a strong landscape setting which creates views and legible routes to and from buildings, connects with the surrounding landscape, and further enhances biodiversity

Design Objective

Each plot should ensure it includes adequate soft landscaping within its demise to enhance the appearance of the buildings and soften the built form. It should also provide a soft buffer between plots and complement the adjacent infrastructure landscaping.

Landscaping will be focused around car parking areas and may include trees, hedgerows, shrub beds and grassed areas. Tree and hedge planting forms a significant structural element within the plot landscape strategy helping to subtly enclose and divide areas, soften the built form and bring a human scale to large dominant structures.

Tree planting (Commercial Street)

(Medium to large: 10-20m)

The commercial area is anticipated to be primarily used for large format logistics and distribution centres. The space as outlined in the HSPD shall include wildlife corridors. To strengthen the corridors native hedgerows will be provided along boundaries in grass verges and trees will be used to enhance the green infrastructure along main corridors and at key focal points with an emphasis on softening or framing commercial buildings. Trees in this area to be planted at a large size for impact.



1. Norway Maple



2. Birch Spp.



3. Rowan/ Mountain Ash



4. Little-leaved Linden

09 SUMMARY



09 SUMMARY

09.1 SUMMARY

This document seeks to demonstrate that the development of this site will result in a well designed, high quality scheme that is an asset to the area, and will provide a desirable development. It is anticipated that the scheme will act as a catalyst for new jobs and bring welcome investment to the local community.

The development represents an investment to the area and will help to promote and support employment growth and stimulate economic regeneration to the area, cohesive with regional and local aspirations.

The design seeks to minimise the impact on its surroundings; providing an opportunity for the development of attractive, contemporary and cohesive buildings that are fit for purpose and safe for all to use.

All design proposals contained within this report have been designed to meet the required design and sustainability policies of Knowsley Metropolitan Borough Council.

