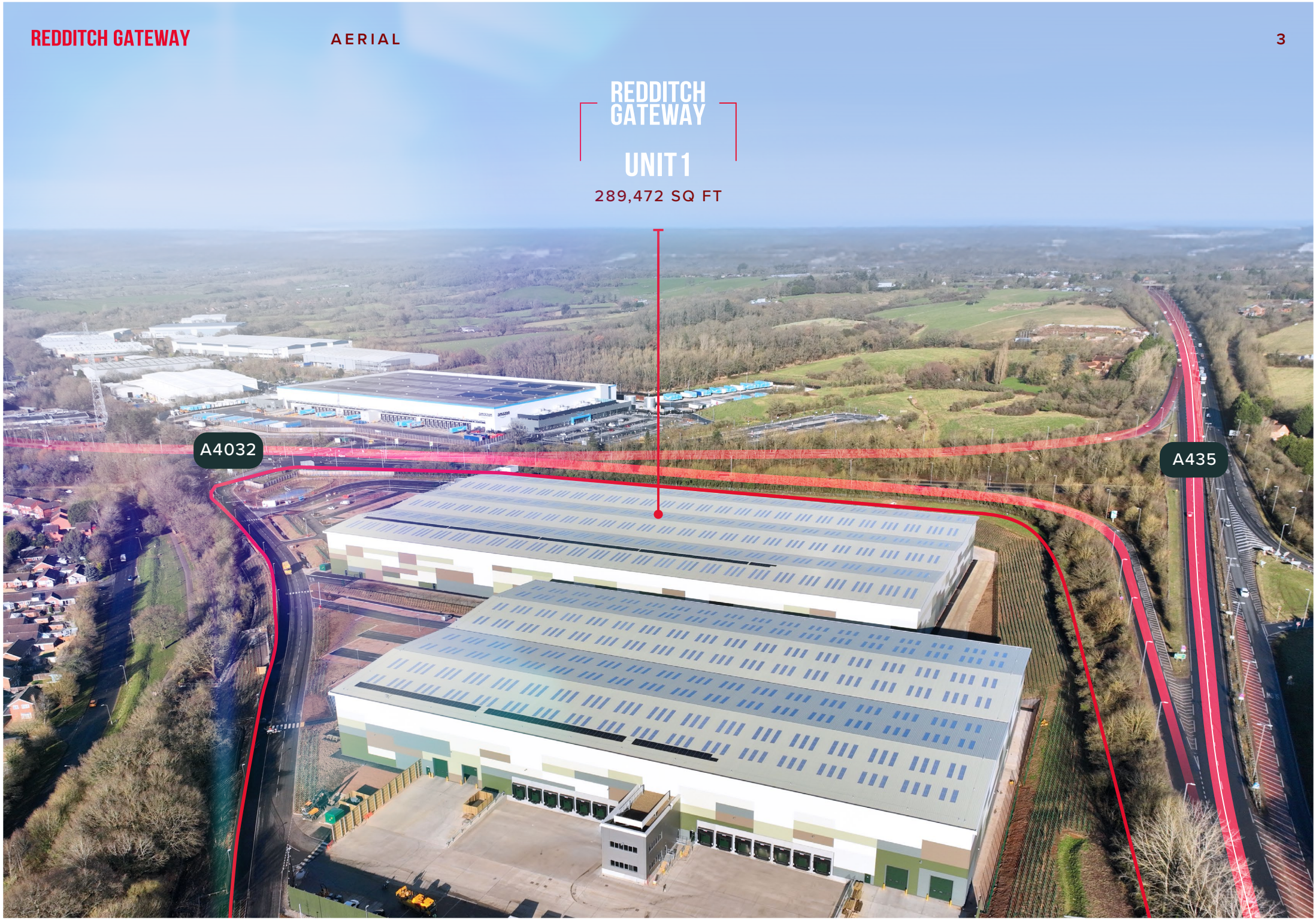
REDDITCH GATEWAY

UNIT 1 – 289,472 SQ FT
BRAND NEW INDUSTRIAL / LOGISTICS FACILITIES

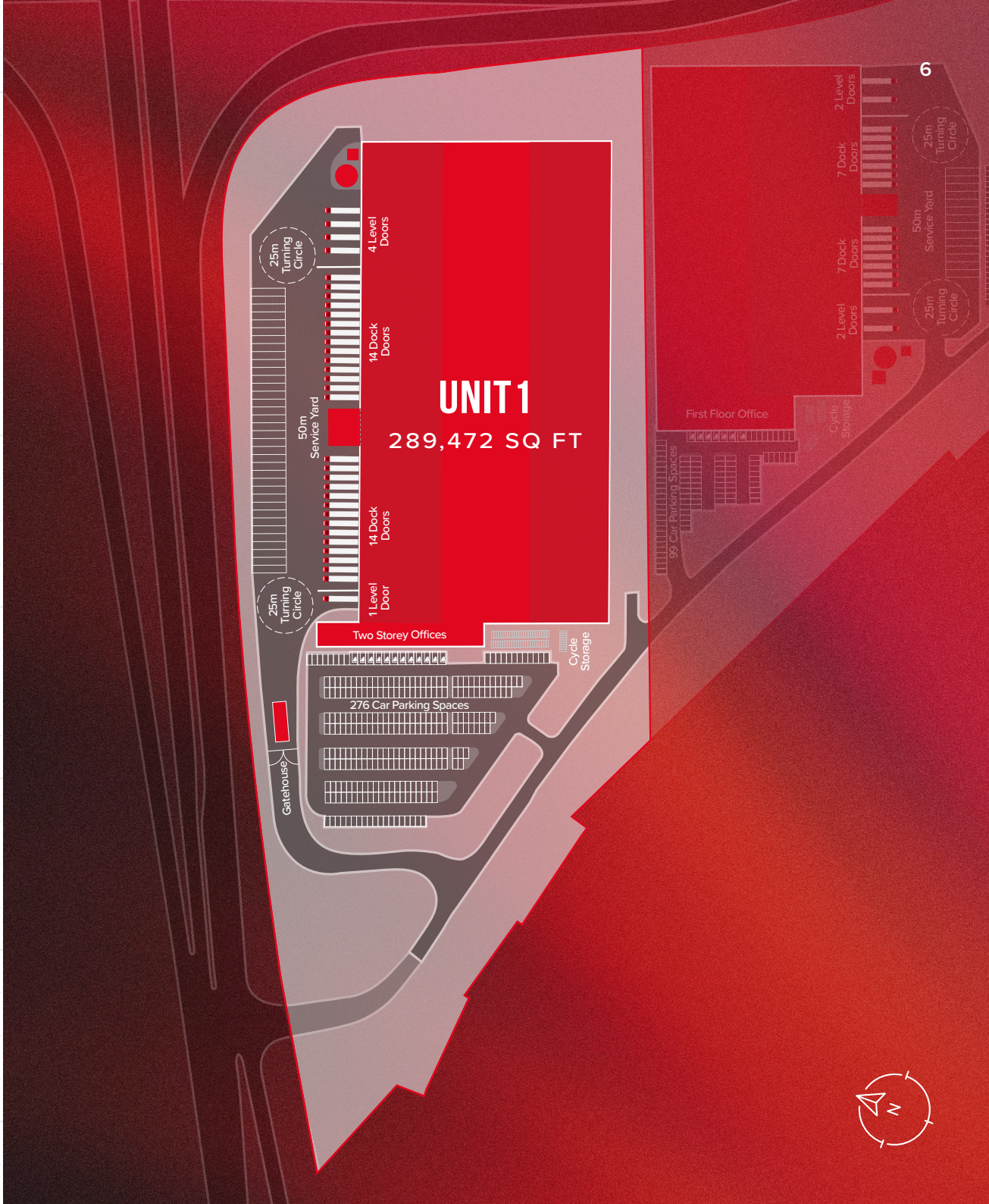
AVAILABLE NOW

REDDITCHGATEWAY.COM
B98 0QX
///BRICKS.REALLY.GREW

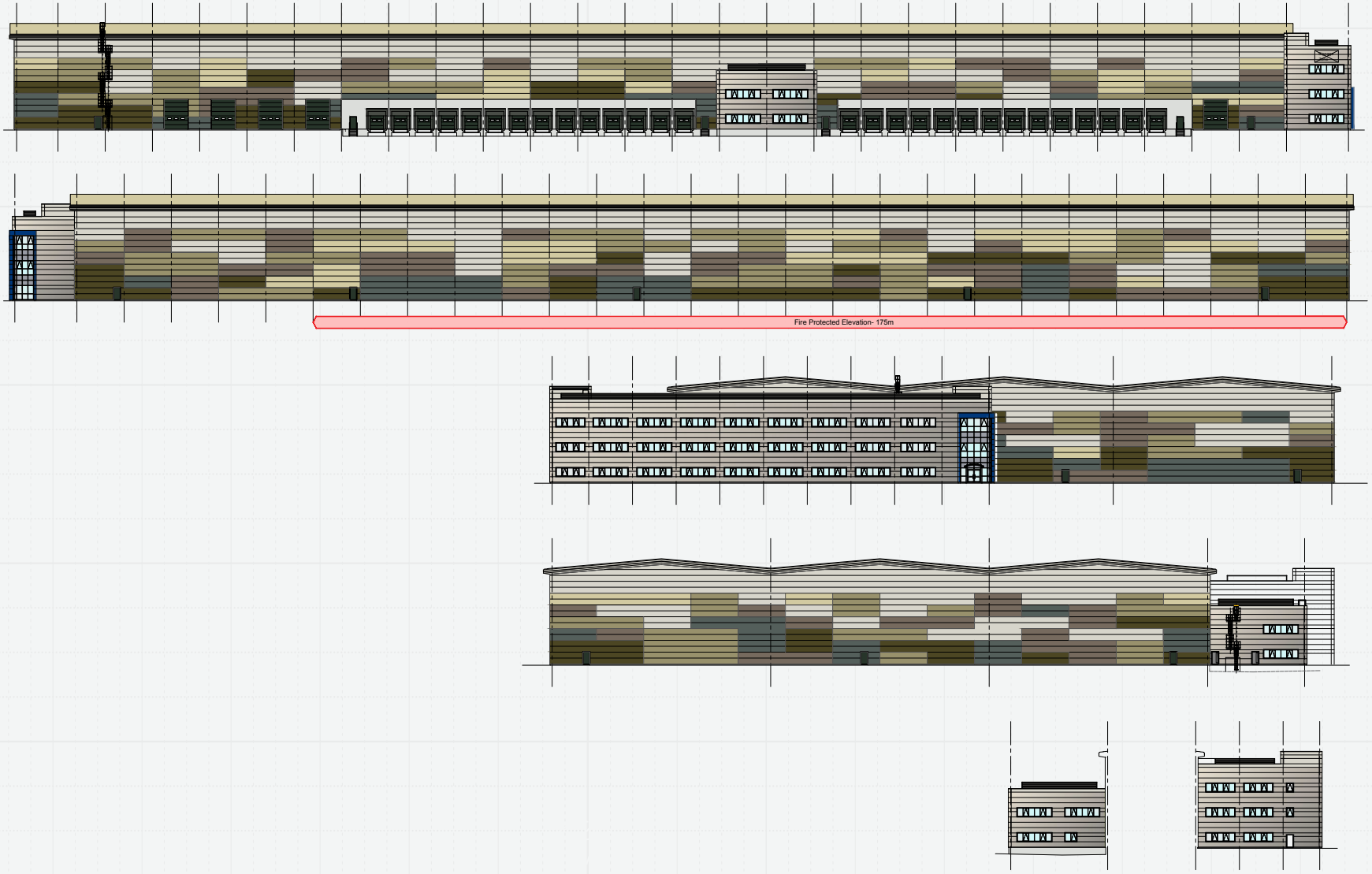

REDDITCH GATEWAY
UNIT 1
289,472 SQ FT
A4032
A435

UNIT 1

	SQ FT	SQ M
Warehouse (incl. Reception)	267,027	24,808
First floor offices	8,121	754
Second floor offices	8,138	756
Ancillary areas/plant	459	43
Hub offices	5,468	508
Gatehouse	259	24
TOTAL (GIA)	**289,472**	**26,893**



UNIT 1



Power

2No. HV Points of Connection #1 (PoC)
c5702m from site boundary at 11kV

Water

125mm
supply pipe

Gas

1529Kw

Telecoms

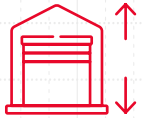
Ducting for tenant
installation

Dock level doors

28 unit
doors

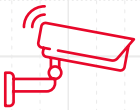
Level access doors

5 unit
doors



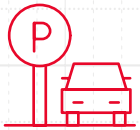
High eaves

15m clear
height



Large, secure yards

50m secure
service yard areas

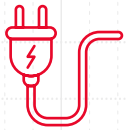


Car parking spaces

276 parking
bays

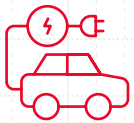
Certification

EPC A, BREEAM
Excellent



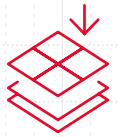
Power

Power supply
1.75 mVa



EV chargers

28 EV
parking bays



Floor loading

Capacity
50kn/m2

Certification

EPC A, BREEAM Excellent

Solar

PV rooftop solar panel

Insulation

Efficient thermal envelope design

EV chargers

Designated EV charging

Bicycle parking

Ample cycle parking

Wellbeing

Employee gym area

Rooflights

15% warehouse coverage

Efficient heating

With air source heat pumps

Landscaping

Extensive planting around the site

Net Zero

Zero carbon construction

Recycled build

Wide use of recycled material

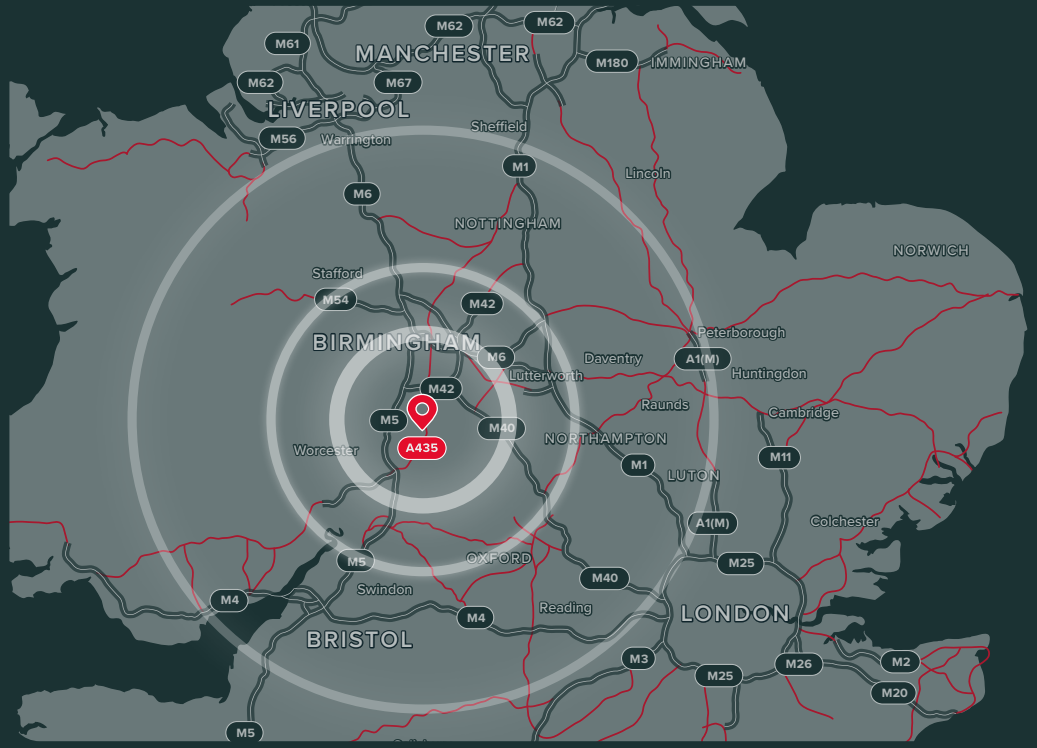
LED Lighting

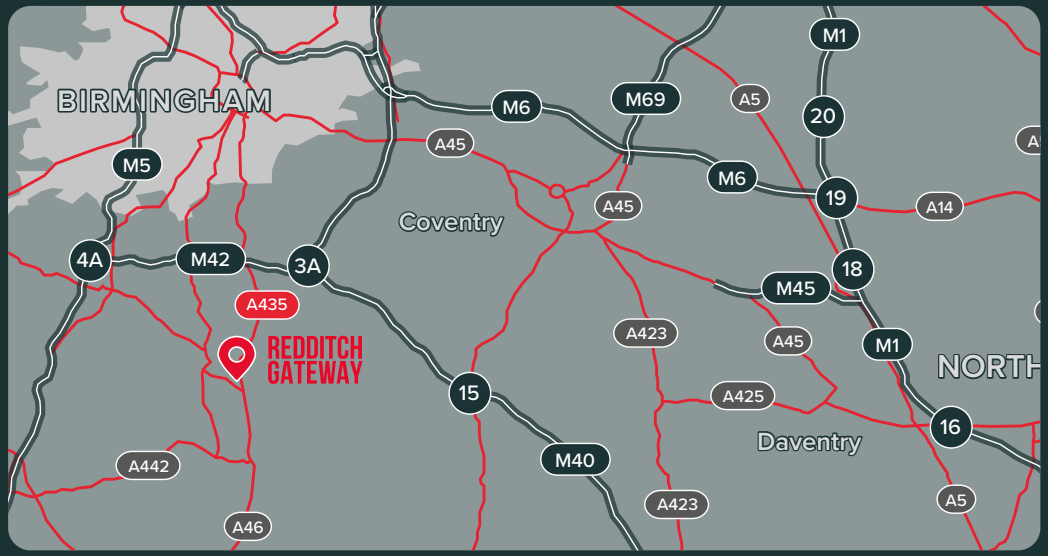
Efficient, smart controlled lighting

Junction 3 M42	4.5 Miles
Junction 2 M42	6 Miles
Junction 3A M42/M40	8 Miles
Junction 4A M5	11 Miles
Junction 4 M6	20 Miles

Birmingham	18 Miles
East Midlands	52 Miles
Heathrow	102 Miles

Birmingham	16 Miles
Central London	114 Miles





Redditch Gateway South, Coventry Highway, B98 0QX

///Bricks.Really.Grew

Reference No: 22/01142/REM
Date of Decision: 12 September 2022

Notice of Decision

APPROVAL

Town and Country Planning Act, 1990
Town and Country Planning (Development Management Procedure) Order, 2015

G Parkes
Tyler Parkes
66 Stratford Road
Shirley
Solihull
B90 3LP

THE STRATFORD-ON-AVON DISTRICT COUNCIL, having considered the application for permission to develop land at:-

Land At Redditch Eastern Gateway Development, Gorcott Hill, Beoley,

Submitted by: Stoford (Winyates) Limited

Received by the Council on 5 May 2022

In accordance with Condition 4 of Notice of Decision dated 10 April 2019 Reference No. 18/03746/VARY

HEREBY GIVE YOU NOTICE that the details are APPROVED for the following development, namely:-

Reserved Matters application (RMA) relating to appearance, landscaping, layout, scale and access (internal to the site) for Use Class B2 (industrial), B8 (storage and distribution) and E(g)(i) (offices) (formerly B1), pursuant to S73 permissions SDC 18/03746/VARY, BDC 18/01596/S73, RBC 18/01626/S73; following outline permission SDC 17/01847OUT, BDC 17/00701/OUT, RBC 17/00700/OUT.

Subject to the following condition(s) and reason(s), namely:-

1. The development hereby approved shall be carried out in accordance with the following plans and drawings:
   - Whole site plan areas - 6950 - 1000 R
   - Proposed Unit A Site Plan- 6950 - 1001 F
   - Proposed Unit B Site Plan -6950 - 1002 K
   - Proposed Trim Trail - 56950-1003 D
   - Proposed Site Ancillary and Phasing - 6950-1004 H
   - Unit A Proposed Plans- 6950 - 1005 D
   - Unit B Proposed Plans- 6950 - 1008 E
   - Whole Site Plan Eastern Gateway - 6950-1011 E
   - Whole Site Plan Eastern Gateway Overlay - 6950-1012 E

Case Officer: Louise Koelman
Reference No. 22/01142/REM

- Whole site Plan Eastern Gateway Site Areas - 6950 - 1013 C
- Local Authority Boundaries - 6950 - 1014 B
- Site Sections - 6950 - 1015 A
- Site Location - 6950 - 1016 A
- B2 Car Parking Plan- 6950-1017 B
- Gatehouse - 6950-1019A
- Unit A - Elevations Alternative Option K-6950-SK021 B
- Unit B - Elevations Alternative 6950-SK022-A

- External Construction Layout REGS-BWB-HGT-XX-DR-C-0700-[S1-P2]
- Kerbing Layout - REGS-BWB-HGT-XX-DR-C-1100 -S1 Rev P2
- Landscaping Scheme - Sheet 1 of 3 - 891- P-01-Rev B
- Landscape Scheme Sheet 2 of 3 - 891 -P-02 Rev B
- Landscaping Scheme Sheet 3 of 3 - 891-P-03 Rev B
- Landscaping Masterplan -891-P-04-Rev B
- Tree Protection Plan (Southern Field) - CCL 09343/TPPSF Rev 5
- Landscaping Specification Incorporating ongoing maintenance and Management Operations April 2022(updated 15th August)

- Drainage Strategy - REGS-BWB-HGT-XX-DR-C-0500-S1-P2
- Northern Ditch Diversion Plan -REGS-BWB-HGT-XX-DR-C-0530 S1 Rev P2
- Flood Exceedance Plan - REGS-BWB-HGT-XX-DR-C-0505 S1 Rev P2
- Finished Levels REGS-BWB-HGT-XX-DR-C-0600-[S1-P3]
- Earthworks Strategy -REGS-BWB-HGT-XX-DR-C-0630-[D2-T2]

Reason: To define the permission and to ensure that the development meets the design quality and environmental requirements of Policy CS.9 of the Stratford-on-Avon Core Strategy (2011-2031).

2. No part of the development to which this reserved matters relates shall be brought into use until the vehicular access to the site, parking and turning facilities have been constructed in accordance with the details indicated on the approved drawing no - 6950 - 1000 R (Whole site plan areas) and for any B2 use, drawing no 6950-1017B (B2 Car Parking Plan) .

   Reason: To ensure safe access to the site in the interests of highway safety and public convenience, having regard to Policy CS.26 of the Stratford-on-Avon District Core Strategy 2011-2031.

3. Within 2 months from the date of the erection of the 4 and 5m high acoustic fencing hereby permitted, the fencing shall be stained in a green colour which shall first be agreed in writing by the Local Planning Authority, thereafter the development shall be maintained in that colour.

   Reason: To protect and enhance the appearance of the development, and to ensure that it accords with Policies CS.5 and CS.9 of the adopted Stratford-on-Avon Core Strategy (2011-2031).

4. Notwithstanding the hard landscape details submitted, details of hard landscaping including;
   - surfacing of pedestrian footpaths,
   - boundary fencing,
   - a 1.2m high post and 4 rail fence to secure the attenuation pond with a gate for maintenance access,
   - vehicular access and hardstanding up to the gate of the attenuation pond from the highway. This must be of a permeable nature,

Reference No. 22/01142/REM

- the attenuation pond shall have a lifebelt and holder and appropriate warning signage, accompanied by interpretation signage to explain to the public the purpose of the SuDS feature and how it functions (the wording for both types of sign to be approved in writing by SDC prior to manufacture and installation),
- the provision of dog waste and litter bin within the area designated as a trim trail
- shall be submitted to and approved in writing by the Local Planning Authority.

The approved scheme shall be carried out concurrently with the development and completed prior to the first building being brought into use.

Reason: To ensure the environment of the development is improved and enhanced in accordance with Policy CS.9 of the adopted Stratford-on-Avon Core Strategy (2011-2031).

5. The planting of the soft landscaping, as detailed on approved landscape drawing nos.
   - Proposed Trim Trail - 6950-1003 D
   - Proposed site Plan - 950-1000 R
   - Landscaping Scheme - Sheet 1 of 3 - 6891- P-01-RevB
   - Landscape Scheme Sheet 2 of 3 - 7891 -P-02 Rev B
   - Landscaping Scheme Sheet 3 of 3 - 8891-P-03 Rev B
   - Landscaping Masterplan -10891-P-04-Rev B
   - Tree Protection Plan (Southern Field) - CCL 09343/TPPSF Rev 5
   - Landscaping Specification Incorporating ongoing Maintenance and Management Operations April 2022 (updated 15th August)

   shall be carried out concurrently with the development and completed within 12 months of first use of any of the buildings hereby approved.

   Reason: To safeguard and enhance the character and amenity of the area, and to provide ecological, environmental and biodiversity benefits having regard to Policies CS.5, CS.6 and CS.9 of the Stratford-on-Avon District Core Strategy 2011-2031.

6. Except for any trees, hedges or shrubs that may be identified for removal on the approved landscaping plans, if within a period of five years from the date of the completion of the building works OR completion of the landscaping scheme pursuant to condition 5 (whichever is later), any retained tree, hedge or shrubs are felled, removed, uprooted, destroyed or dies, or becomes, in the opinion of the Local Planning Authority, seriously damaged, diseased or defective, it/they shall be replaced by planting as originally approved, unless the Local Planning Authority gives its written approval to any variation. This replacement planting shall be undertaken before the end of the first available planting season (October to March inclusive for bare root plants), following the removal, uprooting, destruction or death of the original trees or plants.

   Reason: To ensure the environment of the development is improved and enhanced, having regard to Policies CS.5 and CS.9 of the Stratford-on-Avon District Core Strategy 2011-2031.

7. No demolition, site clearance or building operations of any type shall commence, or equipment, machinery or materials be brought onto site, other than those necessary to complete the tree protection measures, until the tree protection measures identified within the Tree Protection Plan (Southern Field) - CCL 09343/TPPSF Rev 5 have been carried out. In addition;
   a) No equipment, machinery or structure shall be attached to or supported by a retained tree.

b) No mixing of cement or use of other contaminating materials or substances shall take place within, or close to, a root protection area (RPA) that seepage or displacement could cause them to enter a root protection area.
c) No fires shall be lit within 10 metres of the nearest point of the canopy of any retained tree within or adjacent to the site.
The tree protection measures shall be kept in place until all parts of the development have been completed and all equipment, machinery and surplus materials have been removed from the site.

Reason: To ensure the well-being of the trees and hedges to be retained and continuity of tree cover and, maintaining and enhancing the quality and character of the area in accordance with Policy CS.5 of the adopted Stratford-on-Avon Core Strategy (2011-2031).

8. Prior to Unit A and/or Unit B (as identified on drawing number : 6950-1000R) being brought into use of the development hereby approved details of the Car Park Management Plan (CPMP) shall be submitted to and approved in writing by the Local Planning Authority. The CPMP shall include, but not be limited to:
   Details of the occupiers operations strategy;
   - A car parking accumulation assessment, taking account of the user's operational strategy, which demonstrates the cumulative maximum car parking demand across a 24 hour period;
   - A car park layout plan, to include parking space dimensions and details of any disability/mobility impaired car parking space provision, car share parking space provision, motorcycle parking space provision, any Electric Vehicle parking bays and the location of additional on-site parking space provision should this be required as a result of the car parking accumulation assessment;
   - Visitor car parking arrangements;
   - Any other measures necessary to ensure parking demand does not exceed the maximum accumulation and that all car parking demand can be accommodated on site; and
   - CPMP update and revision process, including integration with relevant Travel Plan

   Thereafter the development shall proceed in accordance with the approved details prior to the development being brought into use and retained as such thereafter.

   Reason: To ensure adequate on-site car parking space is available to serve the development and prevent indiscriminate on-street parking on Far Moor Lane and surrounding residential roads , the interests of highway safety in accordance with Policy CS.26 of the Stratford-on-Avon District Core Strategy 2011-2031.

9. Prior to the first occupation of any building hereby approved, a baseline parking survey of Far Moor Lane and nearby residential roads shall have been undertaken, the scope of which shall be agreed in writing by the Local Planning Authority and the survey shall be carried out in accordance with the approved details.

   Reason: To establish existing levels of on street car parking occurring within Far Moor Lane and nearby residential roads prior to occupation of any of the approved buildings providing a baseline for assessment of highway impact, in the interests of highway safety and public convenience, having regard to Policy CS.26 of the Stratford-on-Avon District Core Strategy 2011-2031.

10. Occupation of any building for B2 uses shall require the associated car parking area for the building to be laid out in accordance with number of car parking spaces identified on plan no 6950-1017B - B2 Car Parking Plan attached as Appendix 5 of the Transport Statement.

    Reason: To ensure adequate on-site car parking space is available to serve the development and prevent indiscriminate on-street parking on Far Moor Lane , the interests of highway safety in accordance with Policy CS.26 of the Stratford-on-Avon District Core Strategy 2011-2031.

11. Notwithstanding the details submitted on the approved plans, prior to any above slab level works, details of the equipment proposed within the trim trail and a timetable for implementation shall be submitted and agreed in writing by the Local Planning Authority and thereafter shall be carried out in accordance with the approved details.

    Reason: To ensure that a satisfactory form of play equipment is provided on site, having regard to Policies CS.5 and CS.9 of the Stratford-on-Avon District Core Strategy 2011-2031.

12. The level of noise emitted from the site shall not exceed the following limits, as measured at any point at or beyond the site boundary. All measurements shall be made in accordance with the methodology of BS4142:2014; Methods for rating and assessing industrial and commercial sound and/or its subsequent amendments.
    - Mondays to Fridays 07:30 to 18:00 hours 45 dB LAeq (1 hour,)
    - Saturdays 08:00 to 14:00 hours 45dB LAeq (1hour,)
    - At any other time 35dB LAeq (15 Minutes)

    Reason: To protect and safeguard the reasonable living conditions of the occupiers of noise sensitive property in the locality, having regard to Policy CS.9 of the Stratford-on-Avon District Core Strategy 2011-2031.

Notes

1. The Local Planning Authority has taken into account paragraph 38 of the National Planning Policy Framework 2019, which details the need to work proactively with applicants to secure developments that improve the economic, social and environmental conditions of the area.

2. When discharging condition 15 (Samples of materials) of 18/03747/VARY, consultation with the Parish Council shall be carried out.

3. Attention is drawn to condition 39 of 18/03747/VARY(Lighting condition) which requires discharge prior to the installation of any external lighting.

   Light could cause nuisance to existing residential properties and ecological interests. Any lighting must be screened to minimise direct illumination falling on land outside of the development. Appropriate shields, baffles, louvres or diffusers should be installed prior to their use to ensure that nuisance to nearby properties is minimised. As well as giving consideration to direct glare, any lighting scheme shall also take into account upward reflection. Any lighting scheme should be designed in accordance with the Institution of Lighting Engineers "Guidance Note 1 for the Reduction of Light Pollution (2021)" or similar guidance recognised by the Council.

4. When discharging condition 8 (Car Park Management Plan), the occupiers operations strategy shall include details of employee numbers and shift patterns. Worcestershire County Highways Authority will be consulted on the discharge of Condition 8.

5. The applicant's attention to the need for the development to comply with Approved Document 8, Volume 2, Section 85 - Access and Facilities for the Fire Service. Full details including the positioning of access roads relative to buildings, the arrangement of turning circles and hammer heads etc. regarding this can be found at;
   ww.warwickshire.gov.uk/fireguidance-commercialdomesticplanning
   Where compliance cannot be met, please provide details of alternative measures you intend to put in place.

DATED 12 September 2022

AUTHORISED OFFICER OF THE COUNCIL.....

This development may generate a CIL Liability, if this is the case, you will be notified under a CIL Liability Notice. Further details can be found under Stratford-on-Avon District Council: E-Planning by searching under the application reference on this Decision.

This permission does NOT give approval under Building Regulations.

This permission does NOT convey any approval or consent which may be required under any enactment, by-law, order or regulation other than planning permission under the provisions of the Town and Country Planning Act 1990.

IT IS IMPORTANT THAT YOU READ THE NOTES ATTACHED TO THIS FORM

STRATFORD-ON-AVON DISTRICT COUNCIL
ELIZABETH HOUSE, CHURCH STREET, STRATFORD-UPON-AVON. CV37 6HX.

Reference No. 22/01142/REM

1.0 GENERAL DESCRIPTION

1.1 PROJECT

The works, as indicated on the drawings list in Section 1.4, comprise the construction of a warehouse/production unit of approximately 256,880ft² gross internal area (GIA), having a clear height to underside of haunch of 15.0m. External, three storey office accommodation is to be provided of approximately 24,024ft² GIA. A hub office is to be provided, comprising two storeys and having an area of approximately 5,424ft² GIA. A gatehouse having a an area of approximately 258ft² GIA. In total the development provides approximately 286,586ft² gross internal area (GIA). External site works include hardstandings, gatehouse, car parking, landscaping, mains services and drainage.

The ground floor main office fit out is limited to the core area comprising a reception, lift, stairs and WCs. Any remaining ground floor main office area will be left as shell accommodation for later fit out.

First and second floors of the main office to receive full open plan fit out.

The ground and first floor of the hub office to receive full open plan fit out

276No car parking spaces will be provided.

28No motor cycle spaces will be provided.

34No HGV spacings will be provided.

The development comprising Unit A and B will achieve a BREEAM 2018 rating of Excellent and Planet Mark Development Certification.

The carriageway of the estate road from the adopted highway to the plot boundaries will be constructed to an adoptable standard.

For the avoidance of doubt, heating and lighting is not to be provided to the warehouse/production unit within these works but, for the purposes of Building Regulation approval, it is to be assumed that heating and lighting will be installed at a later date, assuming gas-fired heating and high-efficacy lighting.

1.2 DESIGN, MATERIALS AND QUALITY STANDARDS

The work shall be executed in accordance with the relevant current British and/or European Standards and Codes of Practice whether or not named in this document and unless stated otherwise. In the absence of an appropriate Code of Practice, the development shall be required to conform to current good practice.

Unless specifically stated as otherwise, any reference to specific manufacturers, products and\or suppliers is made to establish a minimum acceptable level of quality. The contractor may propose alternative manufacturers, products and\or suppliers of equal or superior quality for approval by the Employer's Agent.

All materials are to comply with the current, relevant British and/or European Standards and Codes of Practice and are to be incorporated into the works in accordance with the manufacturer's written recommendations.

The design and construction of the works are to comply with the following statutory requirements to the extent that they apply to the works and/or the anticipated use of the works following completion:

(a) Any Acts of Parliament and any statutory instruments, rules, orders, regulations, notices, directions, bye-laws and permissions for the time being made under or deriving validity from any Act of Parliament;

(b) Any European directive or regulations and rules having the force of law in the United Kingdom; and

(c) Any regulations, orders, byelaws or codes of practice of any local or statutory authority or statutory undertaker having jurisdiction over the Works

1.3 PROHIBITED MATERIALS

Neither the contractor nor his design team shall specify for use or permit to be used any of the following prohibited materials for use or used in relation to the development or any part or parts of it:

Any materials or substances generally known to be or suspected of being deleterious at the time of specification or use, including, but without limitation substances which have been referred to by the Building Research Establishment at the date of this specification as being hazardous to health and safety or to the durability of the Development in the particular circumstances in which they are used and substances which are not in accordance with current British and/or European Standard Specifications and Codes of Practice or with the publication entitled " Good Practice in the Selection of Construction Materials" published by the British Council for Offices.

1.4 DRAWINGS

This Specification is to be read in conjunction with the following drawings;

6950 – 1000 R Proposed Site Plan
6950 – 1001 G Proposed Unit A Site Plan
6950 – 1003 D Trim Trail
6950 – SK037A Unit A Proposed Plan
6950 – 1007 L Unit A elevation
6950 – 1017 B B2 Parking
6950 – 1019 A Gatehouse
6950 – 1020 Sectional Completion
6950 – SK021 B Unit A Elevation Alternative

1.5 EXCLUSIONS / ASSUMPTIONS

The following items are specifically excluded;

- All firefighting equipment, sprinkler installations, hose reels and extinguishers and any other firefighting equipment, other than as a requirement of the Building Regulations and/or Bye Laws or the Fire Officer.

- Mechanical, and electrical installations within the warehouse unit, except for those expressly described.
- Accommodation works and welfare areas within the warehouse area.
- CCTV, intruder detection, access control, telephone and data systems.
- Any external signage including support steelwork.
- Canteen/kitchen, catering equipment, servery and fittings.
- Furniture, furnishings, blind fittings, lockers, shelving, process machinery of any type, racking, skips, vehicle wash equipment including bases, fuel installation including bases.
- All office fit out requirements relating to the ground floor of the office block excluding the reception / lobby core area.
- Any structures, fixtures and fittings not detailed within this specification.

1.6 PATH TO ACHIEVING NET ZERO CARBON ON THE BASE BUILD

The building will be constructed Responsibly and at every stage, consideration will be given to minimising embodied carbon and to reducing energy use in operation. The building will achieve a minimum Energy Performance Certificate rating of 'A'.

Materials will be sourced from manufacturers holding Environmental Product Declarations (EPDs) wherever possible. Materials with carbon offset credentials will be utilised where appropriate and the supply chains for materials and suppliers will be examined to see they are responsibly manufactured and supplied. A highly efficient thermal envelope design centred around high levels of insulation and air-tightness will reduce the amount of energy required to heat and cool the building. The mechanical and electrical services (see Section 5) will utilise energy in a highly efficient manner.

An evaluation of embodied carbon will be undertaken in accordance with BS EN 15978 and reported at design stage and through the construction stage to see that the embodied carbon is measured and recorded, such that at completion of construction, the embodied carbon value can be certified.

The roof of the building will be strengthened as necessary to see it can support a sufficient area of photo voltaic panels to generate sufficient electrical energy on an annual basis equivalent to the Base-line Operational energy value for the Basebuild only fixed building services calculated at design stage. This may in turn allow in-built off-set of the embodied carbon in the building, but more importantly will allow such a PV installation to be scaled up to match the operational energy demands of the building on an annual basis. A comprehensive metering and reporting system will be provided to permit the energy use to be remotely monitored and verified and the extent of PV required assessed on a regular basis to achieve Net Zero Carbon in Operation over an agreed timescale.

2.0 SUB-STRUCTURES

2.1 GEOTECHNICAL REPORT

An intrusive Site Investigation including appropriate geotechnical and contamination testing shall be undertaken and the recommendations/results used in the subsequent substructure and foundation design.

2.2 SITE CLEARANCE

The existing site shall be cleared of vegetation and the like prior to commencement of the construction works.

2.3 EARTHWORKS

Excavation/filling will be carried out over the site to achieve the formation levels over the building and external areas. All filling is to be carried out in strict accordance with the requirements of the Structural Engineer.

Imported materials will require validation to ensure their geotechnical and chemical suitability for the works. Materials imported must comply with the relevant waste management regulations.

During the development works, to reduce off-site disposal costs and increase sustainability, site-won materials are to be recycled and reused wherever possible. Site-won materials will require validation by geotechnical testing, chemical analysis and certification to ensure they meet the required specification.

2.4 GROUND IMPROVEMENT

Specialist sub-contractors will carry out any necessary ground improvement works, in full accordance with the requirements of the Structural Engineer and to the local authority's approval.

2.5 CONCRETE FOUNDATIONS

The foundations for all the load bearing walls, perimeter walls, floor slabs and structural frames shall be designed to take account of the prevailing ground conditions, imposed loading and any relevant statutory requirements; with due margins for safety. The foundation solution shall be designed to control settlement within the limits appropriate to the building's structure, finishes, and floor slab criteria.

The whole of the substructure work will be carried out to the Structural Engineer's design and approved by the local authority.

2.6 RETAINING WALLS

Pre-cast retaining walls, including dock leveller pits and tailgate slots, will be provided to the dock area of the building; all to the structural engineer's details.

Where variation of external levels requires the construction of retaining structures, these will be constructed in timber, brickwork, reinforced concrete or proprietary systems to the design of the Structural Engineer and the approval of the local planning authority.

2.7 GROUND FLOOR SLAB

A reinforced concrete ground slab, with a power floated finish, and a minimum thickness of 175mm will be provided to all warehouse ground floor areas within the building. The slab will be designed in accordance with the recommendations of TR34, (4th edition 2013).

The slab will be constructed such that the top surface is within the construction tolerances, as defined in TR34 as FM2 for free movement, within one month post completion the floor shall be surveyed by profileograph and formally reported to confirm compliance has been achieved. The undercroft floor and the warehouse floor are to be surveyed separately and independently of each other. 2 reports are to be produced, one for each of these areas.

The slab will be designed to accommodate a maximum, uniformly-distributed loading of 50kN/m² together with rack leg loads of 10.00 tonnes; based on 15.0m height to underside of haunch.

A wire guided MHE truck system may be employed by a future tenant and therefore, reinforcement is not permitted within 75mm of the floor surface.

The concrete is to be in accordance with the relevant British Standards, seven and twenty-eight day concrete cube test results shall be provided in respect of the ground floor slab to demonstrate that it has achieved its design strength.

The ground floor slab-wearing surface shall have a minimum abrasion resistance of AR2 for production, warehousing and distribution in accordance with BS 8204-2.

Where joints are provided in the construction of the floor, they will be, generally, detailed in accordance with TR34 and designed such to limit vertical movement across joints. The number of joints will be kept to the practical minimum. The offset from the centre of load (e.g. rack leg load) to a joint will be a minimum 150mm, with final offset to be determined through the detailed design in accordance with TR34.

Day joints should be tied or reinforced with Permaban Alpha Joint or similar. All joints are to be sealed just prior to practical completion with sealing compounds having a minimum shore hardness of at least 45. Colour to be agreed.

The office ground floor slab in the area open to the warehouse is to be designed to take a uniformly distributed loading of 50kN/m² and constructed to the same level as the main warehouse floor. The slab will be constructed such that the top surface is within the construction tolerances, as defined in TR34 as FM2 for free movement.

The office ground floor slab in the core and toilet areas is to be designed to take a uniformly distributed loading of 15kN/m² with a surface tolerance and finish appropriate to the specified floor finishes. The ground floor office slab will be set at an appropriate level below finished ground floor level to accommodate the intended floor finishes; generally as described under items 4.4 and 4.5.

3.0 EXTERNAL ENVELOPE

3.1 STRUCTURAL FRAME

The structural frame will be a steel portal frame, with a minimum clear height to underside of haunch at intersection of haunch and stanchion and any valley beam of 15.0 metres. The internal columns to the warehouse shall be provided on a 'hit and miss' basis and shall be free from any diagonal wind bracing etc.

The steel frame to the offices shall be designed to accommodate the floor to ceiling heights set out under Section 4.7, plus a clear zone above the suspended ceiling for services such as fan coil units, air handling units, comfort cooling units, sprinkler systems etc.

The frame is to be designed to accept all dead and live loads and wind loads in accordance with all relevant codes of practice applicable to the contract in force at the time of erection and in compliance with the Building Regulations. A minimum loading allowance of 0.25 KN/m_2 is to be applied with addition loads of 0.1KN/m_2 for sprinklers & a further 0.1KN/m_2 for PV's. Loads imposed by the syphonic drainage are to be included within the base design.

Steelwork will be shot blasted and primed prior to delivery to site. Any primer damaged following erection will be touched up, using matching primer. The frame will be protected with a paint system designed to BS EN ISO 12944:1998 - Atmospheric-corrosivity category C2 and Expected durability of Medium to High - Colour – Grey. Compatibility between paint systems is to be checked. If remedial works are required to webs, flanges, beams, columns or other steelwork that is visible within the completed building, the whole area of affected steelwork will be coated to provide a uniform appearance.

Steelwork positioned within an external wall and encased in masonry, or similar semi-porous material with a coating of isocynate pitch epoxy to a dft of 450 microns. Elsewhere, encased steelwork is to receive a coating of isocynate pitch epoxy to a dft of 450 microns. to a level of 150mm above the adjacent damp-proof course.

Galvanised surfaces of purlins and sheeting rails will be left un-coated.

Where fire protection of structural steelwork is necessary, this will be achieved using intumescing paint or proprietary fire lining board; applied to accord with the requirements of the Building regulations. Intumescing paint will be self-coloured to achieve the nearest match to the remainder of the steelwork. The proprietary fire lining board will be painted to match the remainder of the steelwork.

3.2 ROOF CONSTRUCTION

The roofing will be either a built-up system and/or composite as detailed below; to achieve a 'U' value to meet or better the requirements of the current Building Regulations. GRP, double or triple-skinned, or co-extruded, multi-wall polycarbonate sealed roof-lights will be provided to an area equivalent to 15% of the warehouse/production floor area. Roof lights will be site assembled and achieve 25 years non-fragility rating. Note: Roof lights are not LPCB Approved or FM Approved as this is not available.

The exposed, profiled, steel, roof sheeting will have a TATA Steel Colorcoat HPS200 Ultra coating or equal and approved, from the standard range of colours. A 'Confidex' guarantee including the Confidex Sustain requirement or equal and approved will be provided for the coatings. A minimum of 30 years guarantee will be provided. Internal liner sheet to be zinc

coated steel, with internal coating of lining enamel, colour white. An adequate vapour control barrier is to be incorporated. The system is to be installed as manufacturers guidelines. The systems are to be designed, installed, and inspected, to achieve the relevant manufacturers system guarantees.

Composite systems are to be certified by the Loss Prevention Council Board (LPCB) or FM Global Approved with regard to fire performance.

The design and construction of all junctions, including ridges, eaves, hips and verges, will be in accordance with the roof sheeting manufacturer's recommendations and in accordance with the architect's approved, robust, design details to ensure continuity of insulation. Should any evidence suggest that continuity of insulation has not been achieved; the contractor will undertake thermal imaging and provide the results.

The building will comply with part L of the Building Regulations and an air-leakage test is to be carried out to confirm compliance with the air-leakage criterion assumed in the required thermal efficiency calculations.

All efforts are to be made to reduce the frequency or requirement for roof access. Where frequent access is required, a 'Mansafe' system will be provided to allow safe roof access and maintenance to all roof areas, including two sets of harnesses and lanyards.

3.3 RAINWATER GOODS

Boundary and valley gutter material will be a minimum 1.2 mm thick nominal pre-galvanised steel, complete with 1.2mm PVC pre-laminated membrane, in accordance with the Metal Gutter Manufacturers Association (MGMA). The gutter system is to have a minimum 25 year guarantee to match the roof system. All internal gutters to be factory insulated using rigid 50mm thick rock fibre insulation. Downpipes are to be designed to avoid office areas. Where unavoidable, downpipes within the office compartment shall be acoustically insulated and boxed in.

Wherever possible, rainwater pipes are to be located within the web of the structural steel stanchions, with suitable access to the rodding eye provided. Rainwater down-pipes are to be positioned on external walls only. No part of the roof drainage system shall encroach below the clear dimension from the finished floor level to the underside of the haunch. The pipework will be fixed to a dedicated support system. Insulation is to be provided to the system to prevent condensation forming.

All rainwater goods, outlets and down pipes are to have appropriate access for cleaning and maintenance.

Where a syphonic system is utilised the design will be in accordance with the recommendations of HR Wallingford Report SR463 'Performance of Syphonic Drainage Systems for Roof Gutters' and the relevant British Standards with particular regards to geographical location.

An overflow system is to be provided to prevent overflow of gutters into the building.

Tell-tale overflow outlets set at freeboard level and discharging externally at visible locations shall be proved at each end of the gutter.

All downpipes in vulnerable areas are to have suitable hoop protection to a height of 1.2m.

All secondary outfalls should be protected from bird/ vermin ingress and discharge onto a suitably durable hard surface.

3.4 EXTERNAL WALL CLADDING

The cladding indicated on the drawings will be either a built-up system and/or composite as detailed below;

The wall cladding will have a TATA Steel Colorcoat HPS200 Ultra coating or equal and approved, from the standard range of colours. A 'Confidex' guarantee including the Confidex Sustain requirement, or equal and approved, will be provided. A minimum of 30 years guarantee will be provided.

Internal liner sheets to either system to be zinc coated steel, with internal coating of lining enamel, colour white. The internal lining is to be Class 0 rating for surface spread of flame as tested to BS.476.

Colours are to be from the manufacturer's standard range as approved by the local planning authority.

An adequate vapour control barrier is to be incorporated.

The systems are to be designed, installed, and inspected, to achieve the relevant manufacturers system guarantees.

The design and construction of all junctions, including corners, cills, eaves and cap flashings, will be in accordance with the cladding manufacturer's recommendations and in accordance with the architect's approved, robust, design details to ensure continuity of insulation. Should any evidence suggest that continuity of insulation has not been achieved; the contractor will undertake thermal imaging and provide the results.

The composite cladding will be minimal profile/microrib and shall incorporate CFC-free, LPC approved, foam insulation of a thickness to achieve the designed 'U' value. The system is to be certified by the Loss Prevention Council Board (LPCB) or FM Global Approved with regard to fire performance.

The built up system will be insulated with mineral-wool insulation to achieve a 'U' value to meet or better the requirements of the current Building Regulations.

An independent cladding inspector is to be employed by the contractor to review the on site installation and provide a written report to be made available to the Developer, Tenant and Fund.

An air-leakage test is to be carried out to confirm compliance with Building Regulations.

3.5 WINDOWS, CURTAIN WALLING AND GLAZED DOORS

All windows, curtain walling and glazed doors are to use the 'Kawneer', Technal', or 'Schuco' system or equal and approved. The system is to comprise fully thermally-broken, polyester-powder-coated, aluminium heads, cills, mullions and transoms complete with factory-sealed, double-glazed units with glazed and insulated spandrel panels, where

necessary. The glazing will be high performance solar glass on relevant facades and low emissivity glass on all other facades.

Windows are to be openable for ventilation, but with safety locking devices to prevent excessive opening on the basis of 1 in 3 glazed units with the exception of the curtain walling which will sealed. The glazing is to be cleaned from outside by means of static or non-static access equipment.

The main entrance door will be self-closing and will incorporate top and bottom deadlock facilities, letter flap, include a bell push and is to be capable of being retro-fitted for power assistance. The doors are to be glazed to the recommendations of BS 952-1 and BS 6262-4 in toughened glass.

Glazed curtain walling, windows and doors shall be detailed as “robust” details to achieve the required air tightness. In particular, they shall be sealed around their perimeter and to any adjoining element in a manner that is to maintain air-tightness without cracking, whilst allowing for thermal expansion and general building movement.

3.6 EXTERNAL DOORS TO WAREHOUSE

Warehouse doors and frames to be steel aluzinc single-leaf doors 48mm thick to be flush hung in a steel aluzinc single rebated frame on three stainless steel dog bolt butt hinges. Complete with steel threshold with integral seal and seals to remaining three sides, friction stay, internal 2-point security panic bar and fire exit signage on both faces. Supplied factory painted to standard colour range. Doors are to be securely bolted to the structure and sealed to the adjacent structure with two-part, polysulphide sealant.

The ironmongery to a dedicated fire exit door will be modified providing personnel access to and from the service yard.

3.7 LEVEL ACCESS DOORS

4No Level Access Doors to be Stertil-Stokvis Thermadoor model 640 or equal and approved, to consist of electrically operated insulated vertical lift with beam support low level springs for ease of future maintenance. The rigid panels to be manufactured from two skins of galvanised steel, in filled with polyurethane foam, designed to achieve a ‘U’ value to meet or better the requirements of the current Building Regulations. A continuous thermal break is to be provided between inner and outer skins. EPDM seals to be fitted to the top, bottom and sides of the door to prevent rain penetration and minimise draughts. Controls to be single impulse open and hold-to-run to close.

Finger-trap protection to panel joints inside and out. To include 3no double glazed acrylic vision windows. External colour to be from standard polyester colour range, internal RAL 9002. The operator contains self-holding gears to hold doors in the event of cable or spring failure. (Anti-drop safeguard) including Anti-slack cable device CE marked with manufactures declaration of conformity Prevention of persons being lifted: (dead-mans control or torque limit on impulse control).

1.2m high, tubular-steel, protection bollards will be provided (2nr) on the external elevation and (2nr) on the internal elevation to each of the level-access door jambs. The bollards are to be primed, undercoated and have two coats of gloss paint applied in contrasting coloured bands.

3.8 DOCK ACCESS DOORS AND EQUIPMENT

27No Dock Access Doors to be Stertil® Thermadoor model 640-D or equal and approved, comprising electrically-operated, insulated, vertical lift with beam support low level springs. Thermally broken, rigid panels manufactured from galvanised steel, in filled with polyurethane foam, designed to achieve a ‘U’ value to meet or better the requirements of the current Building Regulations. EPDM seals to be fitted to the top, bottom and sides of the door to prevent rain penetration. Controls to be single impulse open and hold-to-run to close. Size to give a clear opening of 2.86m wide x 3.00m high

To include 2no double glazed acrylic vision windows. External colour to be from the manufacturer’s standard polyester colour range, internal Ral 9002.

Each dock access door location will be fitted a ‘Stertil®’, electrically controlled dock leveller, SF2520, or equal and approved, size 2000 mm wide x 2500mm long x 600 deep and fitted with a 450mm, self-cleaning, swing lip. Capacity 6000Kg single axle loading based on 100%of the load to be calculated on the front axle. Colour to be from the manufacturer’s standard range. The leveller is to have panic-stop facilities to prevent freefall in the event of vehicle pull away.

A Stertil® or equal and approved dock shelter is to be installed to each dock leveller opening. Front flaps to be manufactured from heavy-duty 3mm thick PVC. The frame to be galvanized link arm, to provide a 'collapsible' shelter, the top section of the shelter is to have a built in front rain gutter. Size 3.40m wide x 3.60m high x 550mm.

Each dock position will be fitted with low-voltage, heavy-duty LED traffic lights, angle poise LED loading light and interlock safety device to prevent door operation when the dock is in the raised position. Installation to be complete with internal control and traffic light mimic panel.

Doors and dock levellers to be operated from a full composite control panel without the requirement of a secondary high level panel. To be fitted with auto return to park function, red and green repeater/mimic lights, automatic traffic light/loading light switch function and interlock to prevent operation of the dock leveller until the door is fully open.

At each door location, two heavy duty moulded rubber buffers (450mm x 200mm x 100mm) are to be installed. The contractor is to ensure the location of the buffers prevents damage to the envelope of the building.

Doors and dock levellers to be CE marked to meet European Directives. All dock/door locations are to be numbered internally and externally in mirror font; minimum font size 200mm.

Below each dock access, bolted to the external floor 1 pair of Low-profile (200mm above yard), galvanised, steel, tubular wheel guides 2.633m long x 170mm diameter, splayed on plan; the height of the guides to be such that they do not interfere with lorry skirts.

4.0 INTERNAL SUPERSTRUCTURE, FINISHES AND FIXTURES

4.1 UPPER FLOORS

The upper floors will be constructed in a 'Holorib' composite floor or pre-cast concrete planks supported by load bearing blockwork/structural steelwork.

The pre-cast units will be grouted in position. Areas not specified with a raised floor will have a minimum 65mm thick, fine-concrete screed laid over the floor and will include a layer of D49 structural fabric reinforcement. The top surface of the screed will be trowelled to receive floor finishes.

The first and second office floors are to be designed to support a superimposed loading of 3 kN/m² + 1 kN/m² for lightweight partitioning, together with the dead loads and the self-weight of finishes indicated in this specification.

4.2 STAIRCASES

Steel or concrete staircases, in accordance with the architect's details, shall be designed for a superimposed loading of 3kN/ m².

The balustrade and handrails to the main reception staircase will be formed in circular, brushed satin stainless steel, hollow sections. The balustrade and handrails to any secondary, fire escape staircases are to be polyester powder colour coated, circular steel sections; reflecting the design of the main staircase balustrade and handrails.

Main reception stair strings to be softwood; primed, undercoated and finished with two full coats of trade gloss or satinwood paint.

Treads to received carpet tiles and nosings suitable for the use and location, as described below.

4.3 INTERNAL WALLS / PARTITIONS

The wall between the warehouse and the office, will be constructed in pre-finished insulated "whitewall" panelling or metal stud partitioning. Any such construction must achieve the fire resistance and fire stopping required by the Building Regulations. Composite systems are to be certified by the Loss Prevention Council Board (LPCB) or FM Global Approved with regard to fire performance.

The base and head of the internal walls will be closed to prevent any access to the cavity. Movement joints, wall stability and means of restraint will be in accordance with the structural engineer's design and details.

Toilet partitions will be manufactured by Venesta Cubicle Systems Ltd, 'Award' range or equal and approved, with fitted coat hook buffer, toilet roll holder and indicator bolts (with emergency operation facility).

In all toilet areas, sanitary ware is to be fixed within an IPS or equal and approved plastic laminate wall panel system, full-height with removal panels to permit access for maintenance, by Birmingham Joinery, or equal approved.

4.4 RAISED FLOORS

Generally, throughout the first and second floor of the open plan areas of the main office and the ground and first floor open areas of the hub office a raised access floor medium grade system; as Kingspan or similar, to MOB installation standards to provide a minimum 150mm clear void. The standard medium grade 600mm x 600mm panels to receive carpet tile covering. The raised access floor to be earth bonded in accordance with I.E.E. regulations and the raised floor manufacturers recommendations.

4.5 FLOOR FINISHES

The main entrance reception area and, generally, the ancillary, amenity welfare and plant areas, shall be power floated concrete or screed finish to receive carpet tile or ceramic floor coverings. For the full width of the main entrance reception area and to a depth of 2.0m from the external doors, a 'barrier' entrance mat will be laid in stainless steel matwell frame. All due allowance is to be made for any variation in floor finish thickness.

Generally, throughout the first and second floor of the main office areas, including reception, staircases and circulation areas, and the hub office floors, Desso Stitch or similar carpet floor tile coverings shall be provided.

The office toilets, ancillary lobbies, shower rooms and gatehouse shall be finished in "Polyflor Polysafe Standard PUR", or similar, slip resistant vinyl sheeting complete with welded seams and 100mm high coved skirting.

The open area of the ground floor of the main office will be left as a concrete finish at the same level as the warehouse floor.

Plant rooms and accessible ducts will have no applied floor finish; concrete/screed floors will be treated with a suitable dust inhibitor.

A consistent level floor shall be provided throughout the office and ancillary areas.

4.6 WALL FINISHES

All internal walls unless specified otherwise throughout the first and second floor offices, ground, first and second floor ancillary and circulation areas, the office areas of the hub office and gatehouse shall be plastered/dry lined, fully sealed and decorated with one mist coat and two full coats trade durable flat vinyl matt emulsion paint from standard BS 4800 colour range.

All walls to the all toilets and shower rooms shall be tiled, with minimum 200mm x 200mm or 300mm x 100mm ceramic tiles.

Plant rooms, lift shafts and accessible ducts will have no applied wall finishes.

4.7 CEILING FINISHES

Suspended ceilings will be provided as follows:

Generally throughout the first and second floor offices and ancillary areas, the hub office floors and gatehouse Armstrong "Microlook Ultima" 600mm x 600mm tegular tiles in lay-in grid system, with a stove enamelled finish, on wire hangers.

Toilet and shower areas shall have Armstrong Prima 'Microlook Hyroboard' 600mm x 600mm, or similar moisture resistant tiles, in lay-in grid system.

A proprietary, shadow-edge trim shall be included to all office/circulation areas.

The finished floor to ceiling height to the first and second floor office and ancillary areas and hub office floors and gatehouse shall be 2.70m, and 2.40m in the welfare and toilets areas. Where necessary, to avoid excessively long hangers, suspended ceilings are to incorporate a secondary support grid.

The ground floor, plant rooms and accessible ducts will have no applied ceiling finishes.

4.8 INTERNAL DOORS AND JOINERY

Internal doors throughout the offices to be solid-core, flush doors with non-tropical hardwood veneers. Frames to be softwood and architraves to be mdf; primed, undercoated and finished with two full coats of trade gloss satin paint. The source of all hardwoods to be incorporated within the works is to be disclosed and approved; by Birmingham Joinery, or equal approved.

Where required by the Building Regulations, doors will have an appropriate fire rating and be fitted with intumescing strips, smoke seals, door closers and clear glazed vision panels.

Ironmongery will be appropriate to the location of the door and will be heavy gauge satin stainless steel furniture with ancillary fittings from Eisenware, or equal and approved.

Locks will be individually keyed under master key. (No locking facility is to be provided to toilets and fire exit doors)

600mm high x 450mm wide mirrors, with concealed fixings, to the walls above the wash hand basins in all toilet areas; the lower edge of the mirror to be set at 1.10m above floor level. Mirrors in toilets for the use of the disabled will accord with the requirements of the Building Regulations.

Internal cill boards to be mdf; primed, undercoated and finished with two full coats of trade gloss satin paint. Ex 100mm x 25mm mdf splayed skirtings; primed, undercoated and finished with two full coats of gloss paint.

4.9 SANITARY WARE

All sanitary ware to be Armitage Shanks, Twyford or equal and approved, and supplied complete with all necessary fittings, fixings and accessories. All ware to be white and with concealed pipework, including suitable maintenance access. For avoidance of doubt, male and female toilet accommodation will be required at ground and first and second floor levels. An accessible toilet should be provided at each floor level.

- WCs, surface mounted
- Basins to be wall mounted on IPS system
- Urinals to be complete with automatic cisterns
- Accessible facilities are to comply with Doc. M of the Building Regulations.

A cleaner's cupboard, including a sink with bucket stand, will be provided with hot and cold water services. A tiled splash back will be provided.

An accessible shower compartment will be provided, in accordance with the Building Regulations (Doc M), an alarm shall be provided adjacent to the toilet and will be both visual and audible.

4.10 FIRE PRECAUTIONS

The requirements of the Building Regulations will be incorporated in respect of means of escape, fire resisting doors and partitions, fire exit doors and fittings and all associated signs and notices; insofar as the extent of the works prior to any subsequent fitting out by an occupier.

5.0 MECHANICAL AND ELECTRICAL SERVICES

5.1 INTRODUCTION

This section describes the scope of the mechanical and electrical engineering services and sets out the performance required from the systems in operation.

These provide for an open plan arrangement in the net internal office areas. The ground floor open plan main office area shall be completed to a shell specification as detailed in Section 1.1 and no services shall be provided therein, other than those described herein.

5.2 DESIGN STANDARDS

In addition to the standards detailed within item 1.2, the mechanical and electrical services will be designed in accordance with the following standards:

- British Standards, where relevant to Building Services
- BSRIA Guides and Technical Memoranda
- Chartered Institution of Building Services Engineers' Design Guides
- Statutory Regulations and Instruments

5.3 DESIGN CRITERIA

Winter External Temperature	-4°C db saturated
Winter Internal Temperature – Office Areas	21°C db +/- 2°C control band
Winter Internal Temperature – Common Parts	19°C db minimum
Summer External Temperature	28°C db
Summer Internal Temperature – Offices	22 ºC dry bulb ± 2°C control band
Summer Internal Temperature – Common Parts	Not controlled
Occupancy Rates – Offices	1 person per 10 m²

Ventilation Rates

Fresh Air to Occupants	12 litres per second/person or natural ventilation
Toilet Extract	In accordance with Building Regulations

Acoustic Criteria – noise generated by the Building Services

Main Areas	NR38
Toilets and Common Areas	NR40
Plant Areas	NR65
External Criteria	As required by LA

Electrical Loading allowances

Lighting to offices	7 W/m²

Small Power	20 W/m²

Average Lighting Levels

Office Areas	500lux as per SLL Lighting Handbook
Reception	300lux
Toilets	200lux
Stairways	150lux
Plant Rooms	200lux
Warehouse	Occupier Fit Out Works
External	As CIBSE LG 6 (see 5.17)
Other Areas	As per SLL Lighting Handbook

5.4 MECHANICAL SERVICES

This section provides an outline description of the mechanical engineering systems which will be installed to provide control of the internal environment and deliver domestic sanitary services to the occupants.

5.5 HEATING & COOLING SYSTEMS

Offices and Reception
The offices and main ground floor reception will be heated and comfort cooled by unitary electric heat pumps and/or Variable Refrigerant Flow / Variable Refrigerant Volume (VRF/ VRV) heat recovery electric heat pump systems. These will comprise horizontal chassis units located in the ceiling voids connected to an external condenser unit. The indoor units will deliver treated air into the occupied space through ceiling mounted high-induction diffusers. Air will return to the units through dedicated extract air grilles. All indoor units will heat or cool independent of the other units.

Each indoor unit will be either individually controlled or be part of a group controller as applicable to the location. Return air sensors in the occupied space will control individual or groups of indoor units. The internal units will be fitted with filters that can be removed for cleaning or replacement. Access to the units will be through removable ceiling tiles or casings.

Condensate will be taken away from the units through gravity drainage, pumped where necessary to drain.

Ancillary Areas/Cores
Heating to ancillary areas, toilets, staircases will be provided by wall mounted low surface temperature electric convector heaters with thermostatic control.

Warehouse Area
All mechanical services in the warehouse form the tenant's own fit out works.

5.6 VENTILATION SYSTEMS

Office

The office areas will be provided with fresh air via either from centralised air handling units or via local heat recovery ventilation units located in the ceiling voids. Air will be ducted to the back of the VRF units within the ceiling void where possible or directly into the occupied areas through high induction diffusers. All fresh air systems will be operated in accordance with current guidance or regulations for minimisation of virus transmission.

Office area ventilation systems will have heat recovery of minimum efficiency to comply with Part L.

Toilets
Vitiated air will be extracted from the toilets by dedicated extract systems, with duct-mounted fans within the ceiling void and within risers. Air will be extracted through terminal grilles or circular air valves in the toilet areas, with make-up air coming from the adjacent areas so as to keep the toilets under a relative negative pressure.

Cores
The core circulation areas are to be naturally ventilated

5.7 DOMESTIC WATER SERVICES

Mains cold water will be distributed through a direct water system around the building to serve drinking water and all outlets requiring Class 1 water quality.

A rainwater harvesting system will be installed to provide water to flush all WCs, urinals (unless waterless units are installed) and an external watering point.

Local electric water heaters, fed directly off the mains supply, will generate hot water

An external watering point will be provided, built into the external wall near the offices.

5.8 ABOVE GROUND FOUL DRAINAGE

Above ground foul drainage will be installed to serve all sanitary appliances and a spare connection point will be left at each floor level for the occupier to connect future kitchenettes/vending points.

All drainage will be by gravity wherever possible and will be installed using modern materials.

5.9 HVAC CONTROL SYSTEM

A proprietary digital, standalone, intelligent controller, supplied as a matched unit by the heat pump equipment supplier, will manage the electric heat pump systems and fresh air ventilation systems.

The toilet extract systems will act under the dictates of their own dedicated controllers.

A comprehensive energy and water metering system, incorporating data collection will be installed, to measure the energy use of the building. This data will be made available to the landlord and the occupier as a regular report, to be utilised to determine the route to Net Zero Carbon in Operation and to inform the most energy efficient operation of the building.

5.10 ELECTRICAL SERVICES

This section provides an outline description of the electrical engineering systems that will be installed.

5.11 MAIN ELECTRICAL SUPPLY

A new high voltage supply shall be provided by the local REC, this shall terminate into an onsite HV Ring Main Unit (RMU) within a substation.

The contractor will be responsible for providing a new low voltage supply from the HV substation to a low voltage panel located in the warehouse area.

The main electrical supply will be supplemented with Zero Carbon electricity generated by Photovoltaic (PV) panels positioned on the roof of the warehouse. The amount of PV panels will be calculated to target Net Zero Carbon in Operation of the fixed building services provided as part of the Category A Basebuild building. This system will be battery enabled. The battery will be sized to store a minimum 25% of the PV kWp (kilowatt peak output) installed in the basebuild works. The Production area roof will be strengthened to allow for additional PV to be added in the future.

5.12 LV DISTRIBUTION

An LV distribution system shall be provided from the switch panel. The panel will be modular form and will comprise MCCB's or fuse switches etc., providing the necessary protection for the sub-main system. The LV distribution will be provided from a cabled sub-main system utilising XLPE/SWA/LSF cables.

Distribution boards will be provided to suit the various potential uses within the building. All distribution boards will be provided with MCB's for circuit protection. Distribution boards will be capable of providing single or three phase power. All distribution installations will be sized with a minimum spare capacity of 25% spare ways.

Warehouse level access doors, dock access doors and dock equipment will be served from distribution boards, as required, within the warehouse.

5.13 GENERAL LV POWER

Low voltage power supplies will be taken from local distribution boards to serve small power outlets for cleaning purposes, spurs for hand dryers (hand drier units are a tenant fit out item), mechanical equipment and installations expressly detailed within this specification.

Within the office core areas, cleaning outlets shall be provided assuming a 10m lead on equipment.

Wiring of final circuits will, generally, be carried out utilising LSOH cables enclosed in trunking and conduit, modular wiring or LSOH/LSOH cables with suitable mechanical protection.

To areas of raised access floor, three compartment floor boxes will be supplied at a ratio of 1 per 10m^2. Each box will be fitted with a twin switched socket outlet compliant with BS

7671 High Integrity Earthing Chapter 54 and two twin back boxes ready to accept standard twin outlet plates.

For the avoidance of doubt, where floor boxes are provided within a raised floor, power distribution to the floor boxes is expressly excluded.

Voice and data cabling shall be installed by the Tenants. All wireways shall be provided to enable the voice and data cabling installation to be carried out.

5.14 GENERAL LIGHTING

Lighting to the office areas will comprise recessed, modular LED luminaires. The lighting arrangement will provide an average illuminance of 500lux in compliance with SLL Lighting Handbook.

The luminaries will be arranged on a suitable grid with switching via manual on/off control and absence over-ride detectors. The luminaires nearest to windows shall be daylight linked where applicable.

Lighting to the entrance and reception areas will comprise recessed down lights and/or wall lights with LED lamps. The lighting arrangement will be of a quality suitable for an entrance and reception area.

The lighting system will be wired utilising LSOH cables enclosed in trunking and conduit, modular wiring or LSOH/LSOH cables with suitable mechanical protection. The system will provide flexibility to modify the installation with minimal future disruption. Final connections to luminaires will be via a plug and socket arrangement with heat resistant flex.

All lighting will be designed in accordance with CIBSE recommendations and SLL Lighting Handbook.

5.15 EMERGENCY LIGHTING

The emergency lighting system will be designed in accordance with BS5266:2016 to provide safe passage from the building in the event of an emergency condition and will operate on mains or local circuit failure.

For the avoidance of doubt this includes the internal and external emergency lighting to all perimeter fire escape doors to the warehouse along with fire escape signage.

The emergency lighting system will comprise self-contained battery units and will provide three-hour illumination. Where possible these will be integral to the general luminaries.

Test switches will be provided centrally or integrated into the general lighting switch plates.

All areas will be provided with exit luminaires and legends in accordance with current legislation.

5.16 EXTERNAL LIGHTING

External lighting will be provided utilising high efficiency luminaires either column and/or building mounted.

The lighting will be designed to provide adequate illumination for safety and security, as defined by SLL Lighting Guide 6. Generally, the external lighting shall be provided as follows:

Car park areas:	20 lux
Lorry park areas:	50 lux

All external lighting shall be controlled via a central digital control system, with a combination of photocell, time clock and presence detectors. The light output of the luminaires shall automatically reduce outside of normal working hours, only increasing once a person or vehicle is detected.

5.17 VOICE AND DATA SYSTEMS

Facilities will be provided to allow analogue and digital communications services to enter the building. A total of 4 ducts of 100mmØ dedicated to the facility will be installed, split between to two locations within the building.

5.18 FIRE DETECTION AND ALARM SYSTEM

The fire detection and alarm system shall be designed in accordance with BS5839-1:2017 and will comprise an analogue addressable fire alarm panel located at the main entrance. The system will comply with the requirements of Building Regulations, typically up to 'L3' cover to the office building, but will be capable of being expanded to a 'Type L1' at a later date. The fire alarm will comprise manual call points and sounders only within the warehouse area, or as required by Building Regulations.

Manual break glass call points or automatic detectors will activate the system. Electronic sounders will provide alarm.

All parts of the fire alarm and detection system will be wired in an approved type of fire-resistant cable.

5.19 LIGHTNING PROTECTION SYSTEM

A lightning protection system shall be installed utilising the building structure wherever possible.

5.20 VERTICAL TRANSPORTATION

The passenger vertical transportation system will comprise one central core with one lift, which shall be sized for a minimum of 8 persons (630kg). The lift will be a machine room less electric traction lift to EN81 standards.

The lift will be finished from the manufacturer's standard range to meet the architect's requirements and will be compliant with Part M of the Building Regulations and Disability Discrimination Regulations.

6.0 EXTERNAL SERVICES / CONNECTIONS

6.1 ELECTRICAL

The building will be provided with an electrical supply of 1.75MVA.

Electric Vehicle Charging points will be provided as per Section 7.9 below, as twin chargers on a pole, rated at 7.2kW per pole

6.2 GAS

A dedicated connection will be made to the site gas main sized to serve the theoretical heating requirements for the warehouse element of the building.

The pipe at the gas entry point will be left blanked off.

6.3 WATER

A new water supply will be taken from the site main to the building to serve the sanitary facilities and drinking water requirements.

6.4 TELECOMS

Openreach Telecommunications infrastructure will be brought to the boundary of the plot to enable the connection of either BT or a third-party telecoms provider.

Ducts will be run between the building and the existing infrastructure as defined in Section 5.17.

7.0 EXTERNAL WORKS

7.1 GROUNDWORKS, HARDCORE AND SUB-BASE

The area of the external works will be prepared in accordance with clauses 2.1, 2.2, 2.3 and 2.4 of this specification.

Any capping layers will be of DTLR Specification for Highway Works, MOT type 2 sub-base materials to the specification and satisfaction of the structural engineer. Sub-base material will be a granular, MOT Type 1 material. The sub-base will be laid and consolidated in layers and blinded, ready to receive a polythene slip membrane where required under concrete surfacing.

A minimum layer of 150mm thickness will be laid to areas with block surfacing.

7.2 CONCRETE BEDS

Where shown on the drawings the service yard and service access roads will have a concrete surfacing and will be constructed from PAV 2 concrete to the relevant British Standard with a fine brush finish, with 100mm trowelled margins, and be suitable to take articulated vehicles, operating within the Authorised Weight Regulations, for a total of 5 million standard axles to be applied over a 25 year design life. The concrete mix design shall address durability when subjected to the freeze thaw cycle (by air entrainment or other approved means) with a minimum cement content of 325kg/cu.m.

All concrete work generally will be in accordance with the relevant British Standard.

Concrete paving shall be reinforced to suit the joint layout. Joint spacing shall be selected to control cracking, facilitate construction and changes in gradient. All joints within the service yard are to be sealed with two-part, polysulphide sealant.

Retaining walls within the service yard, where vehicular access is possible to the upper side, are to be designed to either withstand impact or to be protected by suitable barriers.

The service yard circulation space is to be laid to gradients no steeper than 1 in 40. The service yard adjacent to the building, including at grade access doorways is to be no steeper than 1 in 20. Lorry parking areas are to be no steeper than 1 in 20. The area in front of the dock door positions will be designed and constructed to maintain a level bed of docking lorries. At no point on the service yard is the gradient to be flatter than 1 in 100. Access ramps to Docking Areas will be to a maximum gradient of 1 in 12. All to be in accordance with the recommendations of the Freight Transport Association.

7.3 FLEXIBLE PAVEMENTS

Where shown on the drawings, the service access road will be of flexible construction, to the design of the structural engineer, and surfaced with hot-rolled asphalt

The car park spaces will be surfaced in 100mm consolidated thickness of two course bituminous macadam comprising 75mm (20mm nominal stone size) dense base course and 25mm (6mm nominal stone size) medium grade wearing course laid to minimum 1 in 80 and maximum 1 in 30 falls.

White linings to car parking areas will be one-coat, thermoplastic paint to a total width of 100mm. Directional arrows, pedestrian crossings and disabled parking signs will be similarly formed using thermoplastic paint.

7.4 BLOCK SURFACING

Where indicated on drawings, roadways serving car park areas and pathways will be paved in 60mm thick 'Marshalls', or similar, blocks, standard colours, laid herringbone pattern onto a 50mm bed of sand on a minimum 150mm thick sub-base. In circulation routes liable to be used by fire engines or office delivery vehicles there is to be an additional 150 mm layer of sub-base. The joints will be filled with kiln-dried washed sand and the surface well vibrated.

Where indicated on the drawings, footpaths will be excavated to formation level, trimmed, compacted and provided with 100mm thick sub- base, blinded with fine stone, or sand and finished with 60mm thick concrete block paving, laid on a 50mm bed of sand, well vibrated, with joints filled with dry wash sand.

7.5 OTHER SURFACINGS

Where indicated on the drawings paths and external areas will be surfaced with a 75mm depth of compacted, washed gravel, shingle or treated bark laid on 'Terram', or similar, geo-textile fabric. Where indicated on the drawings, footpaths will be excavated to formation level, trimmed, compacted and provided with 100mm thick stone hardcore base blinded with fine stone, or sand and finished with 50mm thick pre-cast concrete paving slabs, laid on a 50mm bed of sand, well vibrated, with joints filled with kiln-dried, washed sand.

The perimeter path to the building will be constructed to allow for sufficient access and loading for MEWP access to the roof and elevations.

7.6 KERBS AND EDGINGS

To the perimeter of all car parks, service yard, service access road and paved areas 254mm x 127mm half-battered, pre-cast, concrete kerbs bedded onto a 325mm x 150mm concrete base and haunch with will be laid. Drop kerbs will be provided at the entrances and where necessary for wheelchair access. Where appropriate 152mm x 52mm pre-cast, concrete edgings will be used.

Where required, Trieff kerbing will be installed to protect vulnerable areas of any structure.

7.7 LANDSCAPING

Landscaped areas will be laid with suitable depth of topsoil (minimum 150mm) in accordance with relevant clauses within the landscape specification and the recommendations of the Landscape Architect. The landscaping will be executed in accordance with landscape plan approved by Planning Authority. Due allowance shall be made in the design for lorry overhangs and security of the site. All building elevations are to be accessible for maintenance means.

Where indicated on the landscape plan, all rubbish will be removed, subsoil graded to contours, minimum 150mm topsoil spread and rotovated, stones removed, beds raked and prepared for planting.

Trees, shrubs and other plants will be planted, watered, staked, supported as necessary and maintained for a period of twelve months. All exposed topsoil areas will be covered with bark mulch. Grassed areas will be graded to contours turfed or hydro-seeded as specified by the landscape specification.

A well being area shall be formed within the site and comprise a hard landscaped area with associated picnic tables & benches.

7.8 FENCING, GATES & BARRIERS

2.40m high, polyester powder coated 'Paladin' type mesh fencing will be provided to the service yard, or where indicated on the site layout drawing. Matching, lockable vehicular and pedestrian gates will be incorporated where shown on the drawings.

The boundary of the site, where not fenced or defined by kerbs, edgings and the like, will be defined by the provision of 100mm x 100mm treated sawn softwood posts set at regular intervals.

A gatehouse and a vehicular barrier will be provided at the site access to the service yard. The barrier to be electrically operated, with manual override facility. Automatic controls will be located in the gatehouse.

A manually operated lockable barrier will be provided at the car park access position.

7.9 SUNDRY

If required, within the service yard Armco type barriers will be installed, as detailed on the drawings.

A bicycle/ bin store with green roofs and ecological enhancements as indicated on the site plan layout drawing.

10% of all car parking spaces to have EV charging points with a further 10% ducted for future expansion.

Where applicable the external steps to the dock level area will be constructed in galvanised steel, with a slip resistant finish. Handrails and balustrading will be provided in circular hollow, hot dipped galvanised mild steel, sections and receive a colour paint finish. Bollard protection is to be provided at external steps locations.

7.10 DRAINAGE

Connections from the site boundary to main foul and surface water sewers will be made in accordance with the requirements of the local drainage authority.

Foul and surface water drainage will be constructed to the details shown on the drainage drawings to the relevant British Standards. Where required, pipework will be protected in accordance with the 'Simplified Tables of External Loads on Buried Pipelines'.

Manholes will be constructed to the depths required using either pre-cast concrete rings with heavy-duty cover slabs or in semi engineering brickwork. The bases of manholes will incorporate all necessary clayware channels and junction fittings and will be benched in fine

granolithic concrete. Galvanized step irons will be included in the walls of manholes and the manhole covers will be of galvanised steel or cast. Any manhole covers, access panels and the like, internally within the building, will to be capable of supporting loads; as detailed within the floor slab specification.

No manholes will be located within the extent of the warehouse/production unit slab.

Manhole covers and gully gratings in the service yard and service access road are to be Ductile Iron grade D400. Drainage channels and gratings in these areas are to be strong enough to withstand small solid wheel forklift trucks.

Manhole covers, gully gratings and drainage channels etc. in car park areas are to be suitable for C250 loading.

Manhole covers, gully gratings and drainage channels etc. in other areas are to be suitable for pedestrian loading unless there is a significant risk of vehicular over run or for deep manholes where a more substantial loading shall be specified.

Where possible there are to be no manholes or gratings in the HGV circulation areas, access roads, in front of level access doors, or office main entrance doors. If unavoidable these must be designed accordingly.

Where necessary, gullies will generally be 375mm dia., 750mm deep, pre-cast concrete or U.P.V.C road gullies with 150mm trapped outlet and rodding eye to BS.5911 Part 230:1994 raised with minimum one course brickwork and fitted with heavy duty or medium duty cast iron gully grate and frame as appropriate to position.

“Decathlon” or equal and approved drainage channel is to be provided at the level access door positions, connected to the surface water drainage system.

The surface water drainage is to comply with any discharge restrictions placed on the site by the Environment Agency, the Planning Authority and local water authority.

All service yard areas and car parks are to drain via suitably designed petrol / oil interceptor(s) to the approval of the Environment Agency and local authority.

A full CCTV inspection will be carried out for both surface water and foul water drainage systems and the results made available for incorporation into the building manual.

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Fund Surveyor

Arcadis

Fund

Cain International

Architect

AJA

Contractor

Winvic Construction

Employers Agent/Quantity Surveyor

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