3
MOVEMENT

Movement

Proposed Access

Vehicular Access

The proposed development will provide vehicular access from the existing junction on Leconfield Road

Pedestrian and Cycle Access

The main access point to the units is from Leconfield Road with additional routes from the C2C route and the wider estate. The proposed development has been designed to minimise walking distances from the surrounding areas to the building entrances. The routes from the road also lead directly to the cycle storage area which are located close to the buildings to benefit from passive supervision.

Car Parking

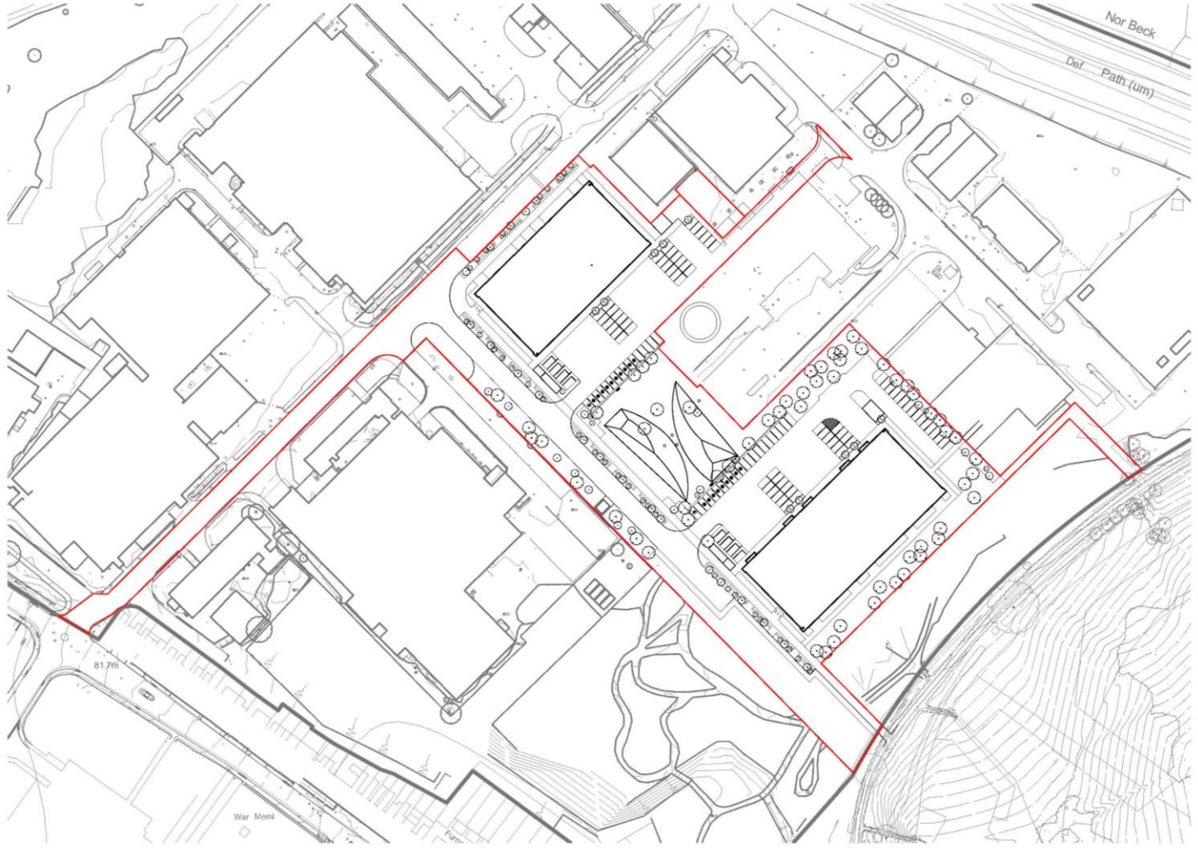
The parking bays are arranged in rows, perpendicular to the aisles and will have a minimum dimension of 4.8x2.4m wide. A minimum 6.0m aisle width between the parking bays for access and movement. Access zones of 1.2m width will be provided to the side of the accessible parking bays which are positioned as close as possible to the units providing direct access via level access points.

Cycle Parking

There are cycle parking shelters for permanent use (including lockable units) and visitor parking adjacent to the entrances.

Delivery and Servicing Arrangements

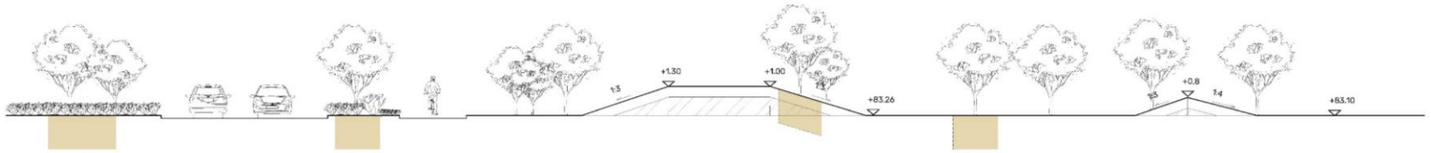
The proposed development has been designed to accommodate the delivery of goods direct to each unit. This includes refuse collection from the bin stores adjacent to each plot



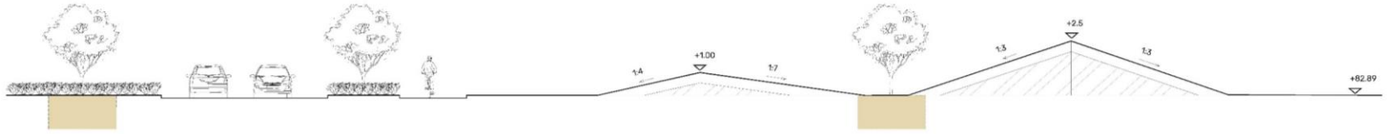
Movement

Proposed Access

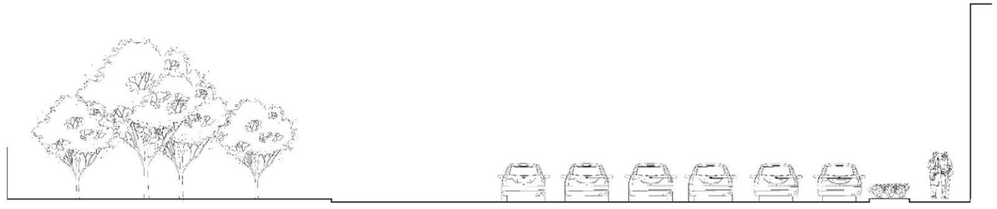
Typical Proposed Mound Sections



Section 01



Section 02



Section 03

Location Plan – Typical Section

Movement

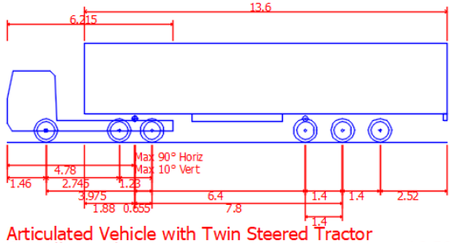
Proposed Access

Highways

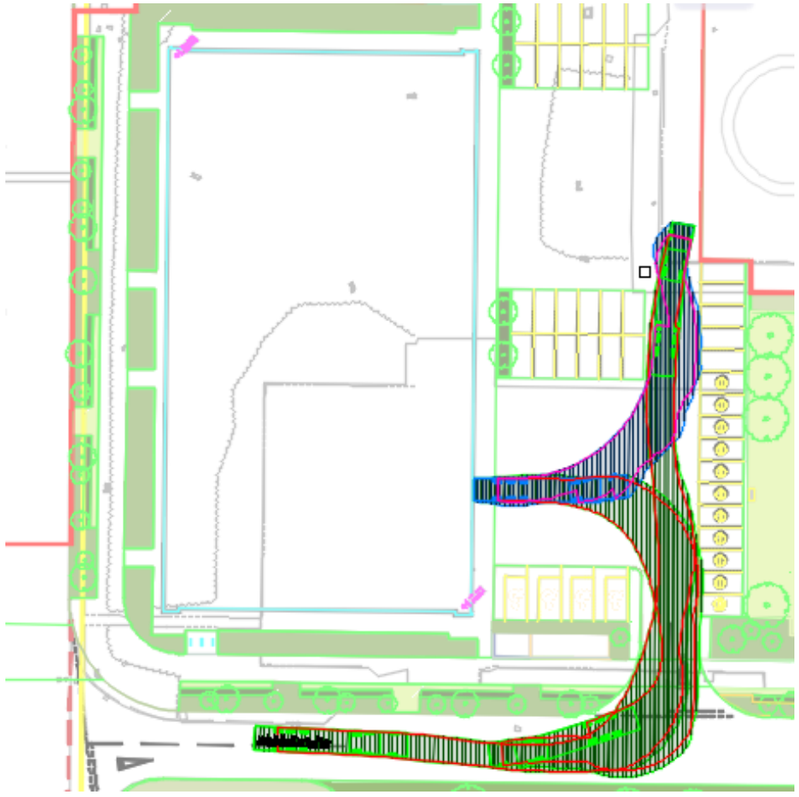
The proposed new units will be served by a new 7.3m wide access road, designed in line with Cumberland Council adoptable standards for an industrial road. A new/upgraded simple priority junction will be provided at the connection between the new road and existing road serving the estate. Current proposals include a shared footway/cycleway along the northeastern side of the new road, separated from the carriageway with a 3m wide grass verge.

Vehicle Tracking

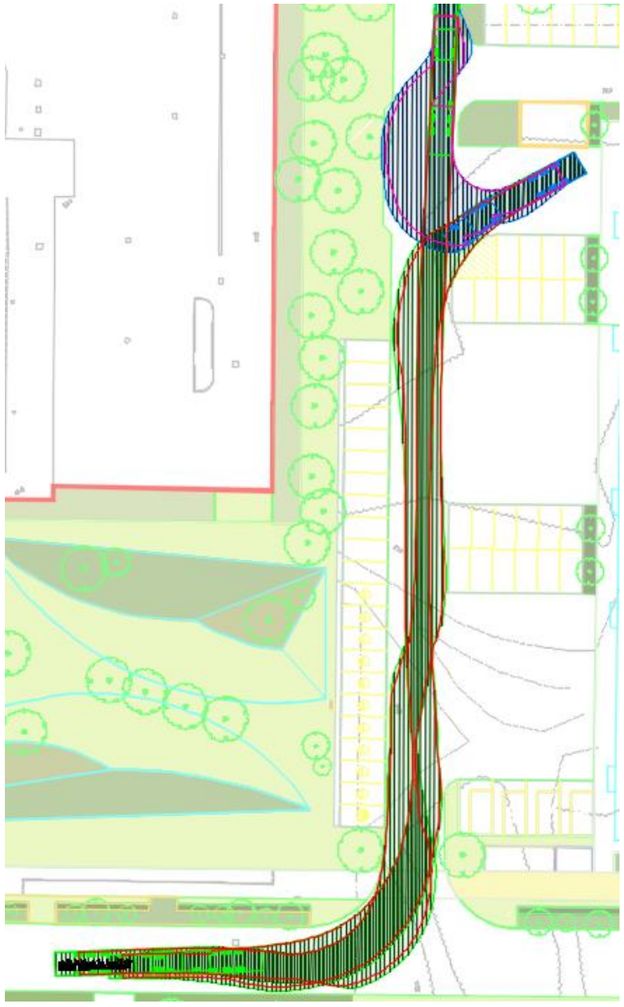
Vehicle tracking has been undertaken on the proposed routes to and from the new industrial units using a maximum road legal length (16.5m) articulated lorry. This tracking demonstrates all proposed units can be accessed by large HGVs. Vehicle tracking has also been undertaken for fire engines and refuse vehicles demonstrate that they are able to access the required areas of the site.



Articulated Vehicle with Twin Steered Tractor	
Overall Length	16.500m
Overall Width	2.550m
Overall Body Height	3.691m
Min Body Ground Clearance	0.426m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	6.987m



Plot 9 – Vehicle Tracking



Plot 12 – Vehicle Tracking

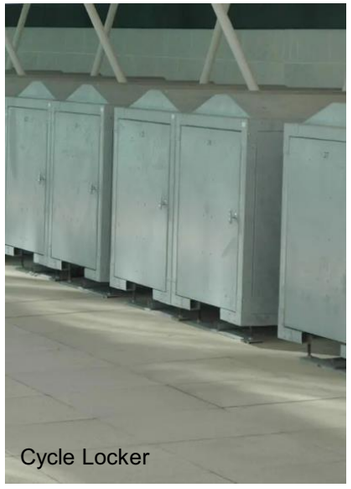
Movement

Proposed External Storage

- Street furniture will use materials chosen for both visual appearance and robustness. All elements to be similar or approved
- Cycle Shelter – Broxap Blox A
- Individual Cycle Lockers – Broxap Sheffield Horizontal Cycle Lockers with chargers for e-bikes
- Cycle Maintenance Stand
- Stainless Steel Harrogate Cycle Stands
- Bin Store – 2.2m high timber clad enclosure with matching gate
- Door Guard with Tapping Bar DDA Compliant Broxap BX14 6620

Cycle Shelter

Cycle Maintenance Stand



Cycle Locker

Harrogate Cycle Stands

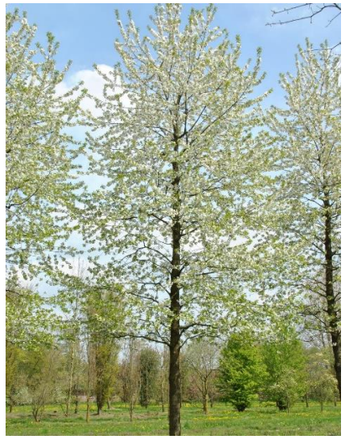
Bin Store

4
NATURE & PUBLIC SPACES

Nature & Public Spaces

Material Strategy– Soft Landscape








The planting strategy is key to realising the vision of the iSH Hub set within extensive green infrastructure and has been designed with a high percentage of native species, and a focus on biodiversity. The design has minimised impact on existing trees and woodland, with a significant number of proposed trees to mitigate the loss of existing trees.

Trees - Native species from the following proposed list, semi-mature specimens. Root balled or container grown subject to time of planting. Irrigation pipe and deadman anchor system for below ground staking.

- Silver Birch (Betula Pendula) Multi-stem
- English Oak (Quercus robur)
- Sweet cherry (Prunus avium)
- Alder (Alnus glutinosa)
- Hornbeam (Carpinus betulus)

Native Hedge - Plant as double staggered row at 7/m. Rabbit guards to all plants

Grass Areas

- Meadow mix seeding – Special General Purpose Meadow Mixture EM3 (Emorsgate) or similar approved
- Flowering Lawn Mix – Emorsgate EL1

STATUS A4 - AUTHORISED (MSC) - no Comments

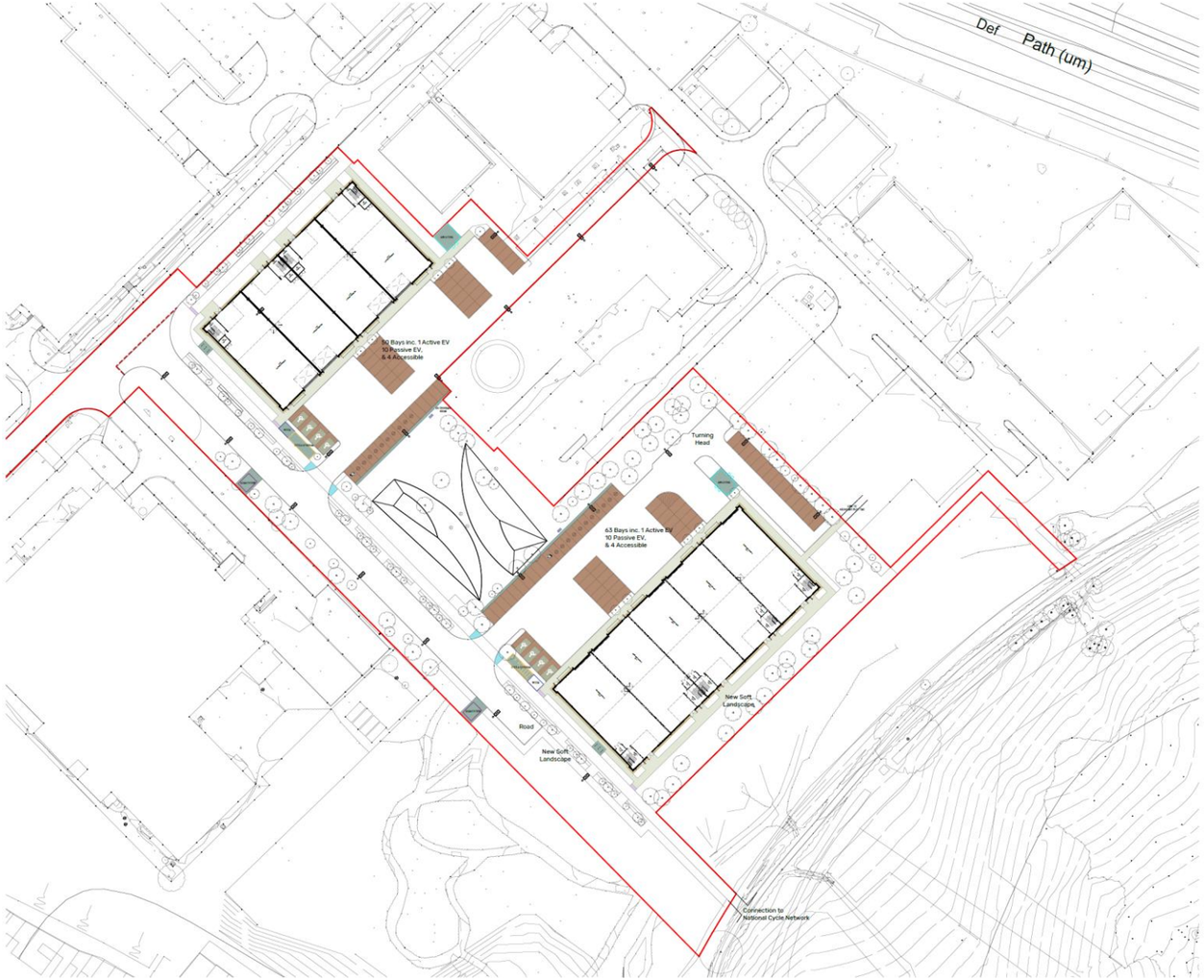
Nature & Public Spaces

Material Strategy– Soft Landscape

- Redline Boundary
- Ornamental Planting
- Hedgerow
- Wildflower Meadow/ Species Rich Grassland
- Native Woodland Mix
- Pollinators Mix
- Existing Vegetation to be retained

Nature & Public Spaces

Material Strategy – Hard Landscape



- Redline Boundary
- Building Edge Concrete Block Paving
  Tobermore 'Braemar' Ground
  Jura Grey 300x200x80mm or similar approved
- Gravel
- Concrete Hardstand
- Permeable Concrete Paving Type 1
  Tobermore 'Hydropave Pedesta'
  Bracken 200x100x80mm or similar approved
- Permeable Concrete Paving Type 2
  Tobermore 'Hydropave Pedesta'
  Natural 200x100x80mm or similar approved
- Tactile Blister Paving
  Tobermore Tactile Blister paving
  Natural 400x400x50 or similar approved
- Tactile Hazard Paving
  Tobermore Tactile Blister paving
  Natural 400x400x50 or similar approved
- Cycle Stands
  6no. Broxap 'Harrogate' Cycle Stand
  Stainless Steel *or similar approved*
- Door Guards
- EV Charger Kiosk
- Active EV Bays
- Passive EV Bays
- Street Lights
- Bin Store
- MCCB
- Substation
- Cycle Storage

Nature & Public Spaces

Landscape Masterplan

Nature & Public Spaces

Ecology

The ecology of the LUF2 site was assessed as part of the wider Leconfield site in 2021. A suite of surveys were undertaken in 2021 to understand and identify what habitats and species are present on the site and these surveys were updated in 2024 to ensure that the information available for the site was up to date. A range of habitats have been identified, including:

- Open Mosaic on Previously Developed Land OMoPDL (high ecological value including purple moor grass and rush pastures, bramble scrub, lowland calcareous grassland and ephemeral waterbodies);
- Other broadleaved woodland;
- Wet woodland (high ecological value);
- Modified grassland;
- Tall ruderal vegetation;
- Scattered scrub;
- Other standing water;
- Introduced shrub;
- Artificial unvegetated, unsealed surface; and
- Developed land; sealed surface (Hardstanding).

The OMoPDL and wet woodland have high ecological value. The other broadleaved woodland, other standing water and ruderal/ephemeral habitats are of local importance as they are likely to support a diverse range of fauna including invertebrates, small mammals and nesting birds but are common and widespread in the wider landscape.

Protected and Notable Fauna

Great crested newts *Triturus cristatus* are unlikely to be present and are not considered a constraint to the development. Other amphibians such as Common Toad *Bufo cristates*, Smooth Newt *Lissotriton Vulgaris*, Palmate Newt *Lissotriton Helveticus* and Common Frog *Rana Temporaria* are present within terrestrial habitat on site.

Tetra Tech reptile surveys conducted in 2021 indicated that breeding populations of common lizard *Zootoca vivipara* are present within the wider site and likely use the site for foraging and commuting. The update surveys in 2024 did not record any sightings of common lizard or any other reptiles, but common lizard were confirmed present on site in 2023 during Ecological Clerk of Works (ECoW) supervision. The proposed development is therefore likely to impact reptiles present on site. The impact on reptiles and common amphibians can be mitigated through the implementation of Reasonable Avoidance Measures (RAMS) during works. The RAMS will include restrictions on timing of site clearance to avoid the sensitive hibernation period and Ecological Clerk of Works (ECoW) supervision will be required during sensitive activities, such as dismantling of refugia and vegetation clearance.

The habitats onsite including OMoPDL, broadleaved woodland and wet woodland were considered suitable for foraging bats. The site was assessed as offering moderate foraging suitability largely due to the presence of the woodland habitat along the eastern boundary, which is of highest value to bats and which connects to the wider landscape. Mitigation will be required to reduce indirect impacts of artificial lighting on this woodland corridor.

Examples of Habitats and Species found on the LuF2 site

Open Mosaic on Prev. developed land

Common Spotted Orchid

Broad leaved woodland

Northern Marsh Orchid

Modified grassland

Dyer's green weed

Nature & Public Spaces

Ecology

Parts of the habitat and surrounding woodlands appear suitable for badgers. Badgers are a highly mobile species and can rapidly colonise new areas. Therefore, a pre-works badger check of the proposed development area will be undertaken at least three months prior to work.

An update breeding bird survey was completed in 2024. Thirty-one species of bird were recorded on site and the following species were confirmed nesting on site: herring gull, house sparrow, lesser black-backed gull, oystercatcher, song thrush, willow warbler, and wren. The loss of onsite habitats is not considered to significantly affect the availability of potential breeding opportunities available within the wider site. The bird nesting season within Cumbria runs from March to September. Therefore, if works are scheduled to commence within this period, nesting bird checks will be required immediately prior to works commencing (within 48 hours).

No dreys or red squirrel feeding signs were noted in 2021 or during the update surveys in 2024, however the woodlands are suitable for red squirrel and as a precautionary measure any suitable trees proposed for removal as part of the development are recommended to be checked for red squirrel dreys prior to removal.

The habitats present on site are likely to support a range of commonly occurring invertebrate species as well as LBAP and species of principal importance. Cinnabar moth *Tyria jacobaeae* and Dingy skipper *Erynnis tages* which are protected under the Section 41 of the NERC Act were recorded onsite. RAMS for these species will include a toolbox talk delivered by an ECoW including identification of the cinnabar moth and dingy skipper caterpillars and foodplants and a site walkover prior to clearance works. These plants and any caterpillars found will be translocated to a suitable receptor area determined by the ECoW.

Eight invasive non-native species as listed on Schedule 9 of the Wildlife and Countryside Act (1981) were recorded within the site boundary. This included Wall cotoneaster *Cotoneaster horizontalis*, Bearberry cotoneaster *Cotoneaster dammeri*, Bullate cotoneaster *Cotoneaster rehderi*, Himalayan cotoneaster *Cotoneaster simonsii*, Hollyberry *Cotoneaster bullatus*, Giant hogweed *Heracleum mantegazzianum*, Japanese knotweed *Reynoutria (Fallopia) japonica* and Rhododendron *Rhododendron pontincum*. Appropriate working practices to prevent further spread are in place. Invasive species present on site are being treated and/or removed from site, in advance of construction works.

Examples of Species and habitats found on the LuF2 site

Dingy Skipper

Caterpillars

Common Blue Butterfly

Cinnabar Moth

Species-rich grassland

Ephemeral ditches

Birds-foot trefoil

Wall cottoneaster

Badgers

Nature & Public Spaces

Ecology

Legend

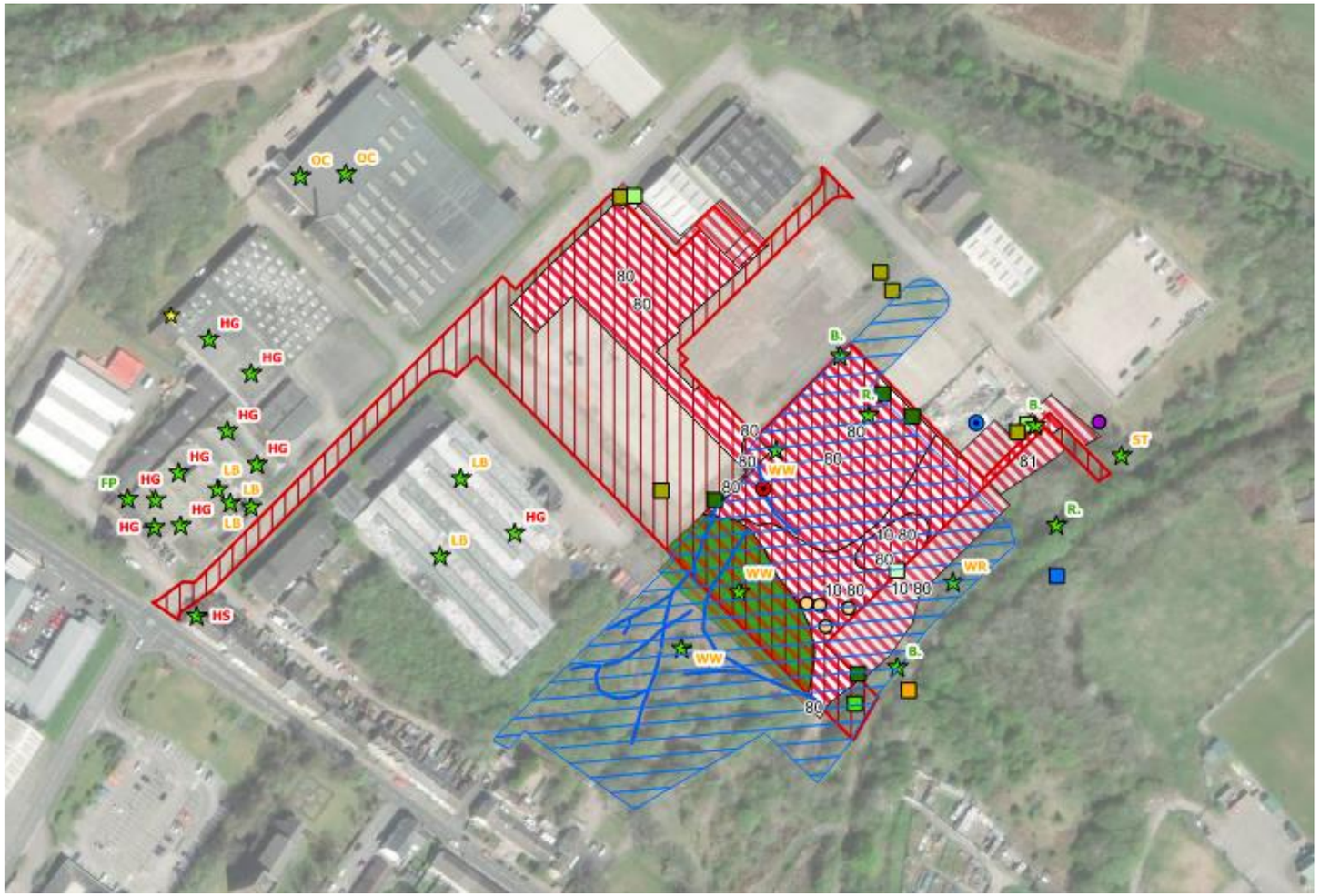
- Main works boundary
- Survey area*
- u1f - Sparsely vegetated urban land
- w1d - Wet woodland
- Open Mosaic Habitat
- Waterbodies
- Common pipistrelle roost location
- Common frog
- Smooth newt and palmate newt location
- Cinnabar Moth sightings
- Dingy Skipper sightings

Invasive Species 2024 Records

- Bearberry cotoneaster *Cotoneaster dammeri*
- Bullate cotoneaster *Cotoneaster rehderi*
- Himalayan cotoneaster *Cotoneaster simonsii*
- Hollyberry cotoneaster *Cotoneaster bullatus*
- Wall cotoneaster *Cotoneaster horizontalis*
- Giant hogweed *Heracleum mantegazzianum*
- Japanese knotweed *Reynoutria japonica*
- Common pipistrelle roost location

Breeding Status

- Confirmed breeding bird
- B. - Blackbird
- FP - Feral pigeon
- HG - Herring gull
- HS - House sparrow
- LB - Lesser black-backed gull
- OC - Oystercatcher
- R. - Robin
- ST - Song thrush
- WR - Wren
- WW - Willow warbler



Ecological Features and Constraints

* u1f category is the Open Mosaic on Previously Developed Land (OMoPDL) habitat

Nature & Public Spaces

Ecology

Legend

- Main works boundary

2024 Records

- Bearberry cotoneaster *Cotoneaster dammeri*
- Bullate cotoneaster *Cotoneaster rehderi*
- Himalayan cotoneaster *Cotoneaster simonsii*
- Hollyberry cotoneaster *Cotoneaster bullatus*
- Wall cotoneaster *Cotoneaster horizontalis*
- Giant hogweed *Heracleum mantegazzianum*
- Japanese knotweed *Reynoutria japonica*
- Rhododendron *Rhododendron ponticum*

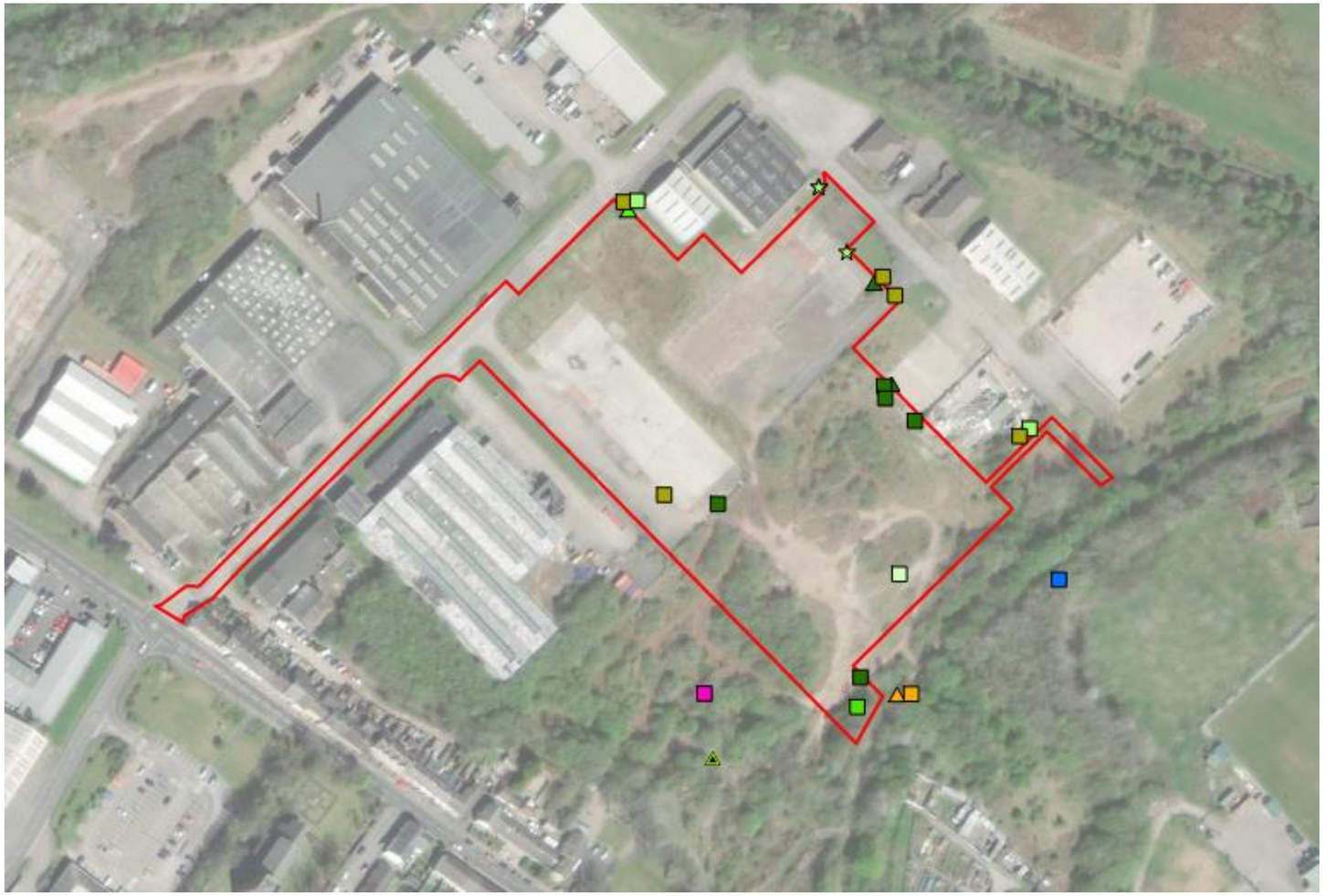
2021 Records

Phase 1

- Cotoneaster

INNS Survey Records

- Cotoneaster
- Hollyberry cotoneaster *Cotoneaster bullatus*
- Wall cotoneaster *Cotoneaster horizontalis*
- Japanese knotweed *Reynoutria japonica*



Invasive Species Plan

Nature & Public Spaces

Biodiversity Net Gain

Legend

- Wider site boundary
- Biodiversity Net Gain (BNG) offsetting sites
- Construction boundary

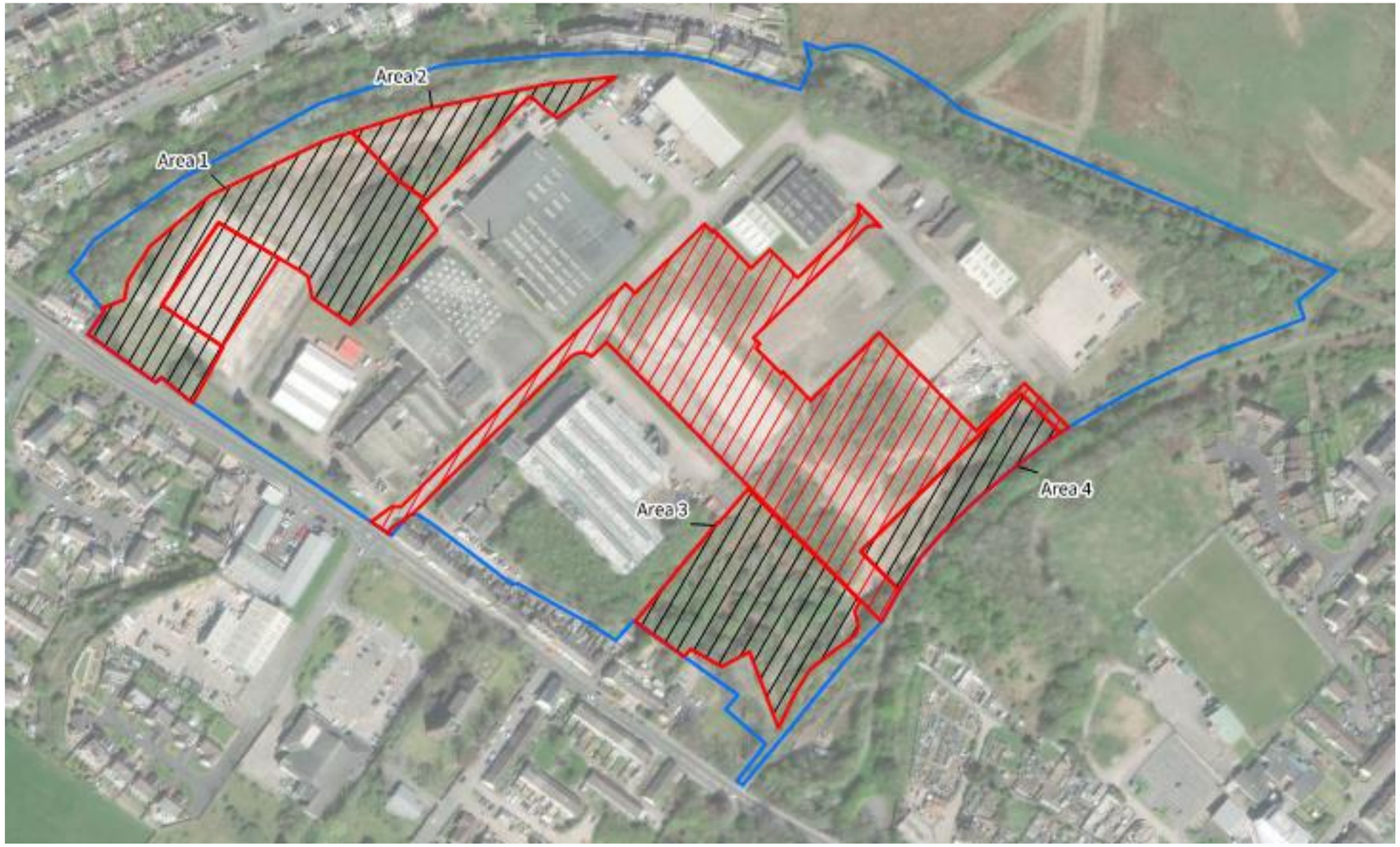
A Biodiversity Net Gain Assessment was completed of the Construction boundary, using the Defra Statutory Biodiversity Metric.

The aim of this BNG assessment was to:

- Quantify the pre-development baseline habitat and hedgerow biodiversity units present on site and within the offsetting areas;
- Quantify the post-development and post-intervention habitat and hedgerow biodiversity units present on site and within the offsetting areas;
- Identify any irreplaceable habitats that require bespoke mitigation to be agreed with Natural England; and
- Calculate the likely change in biodiversity units for habitat and hedgerow units from pre- to post-development to provide an indication of the biodiversity losses / gains that may occur should the proposed development proceed.

The OMHoPDL and wet woodland have high ecological value. There are no irreplaceable habitats present on site.

Four areas suitable for biodiversity offsetting were identified within the wider site boundary (black overlay).



Biodiversity Net Gain boundaries

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Biodiversity Net Gain – Construction Boundary

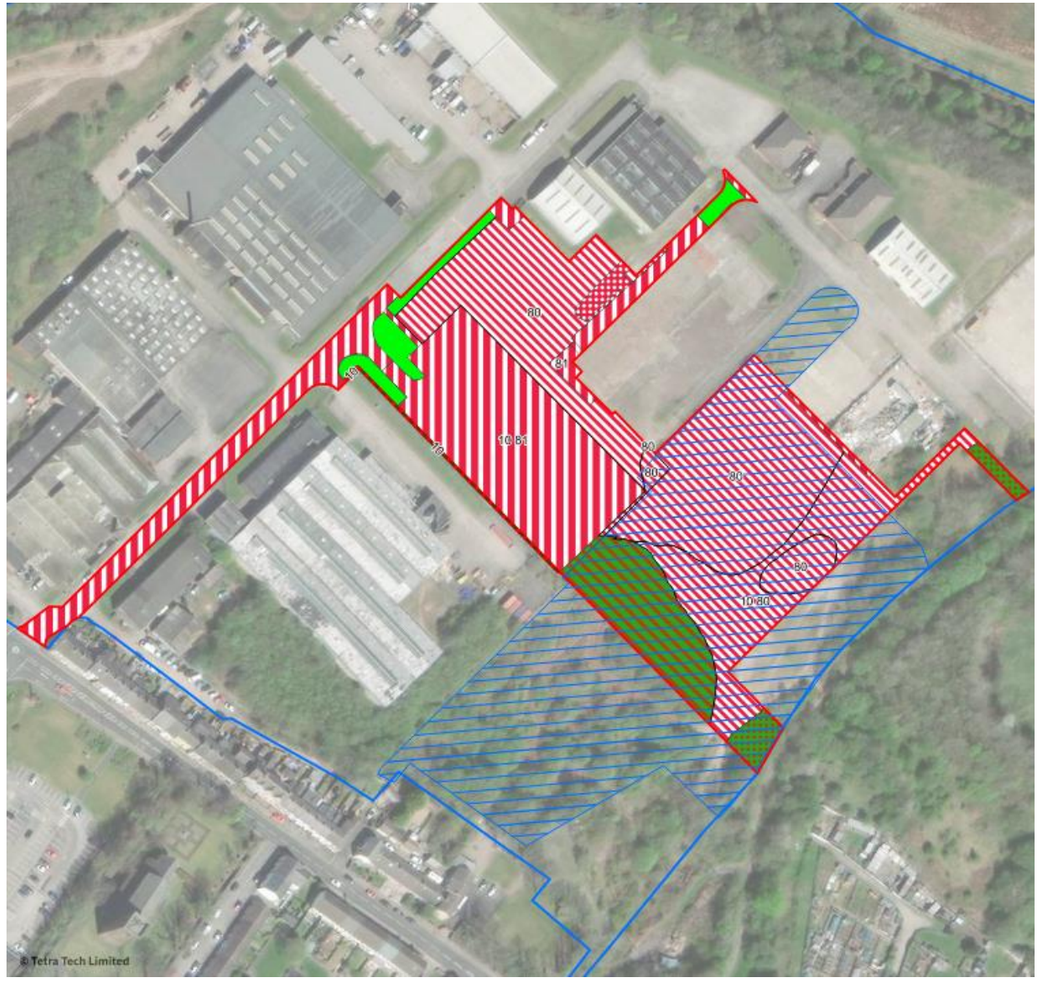
Legend

- Construction boundary
- Ownership boundary
- Priority Habitat Inventory as Open Mosaic Habitats on previously developed land
- g4 - Modified grassland
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- u1f - Sparsely vegetated urban land
- w1d - Wet woodland
- w1g - Other woodland, broadleaved
- u1e - Built linear feature

Secondary Code:
10 - Scattered scrub
50 - Ditch
80 - Open mosaic habitats on previously developed land
81 - Ruderal or ephemeral
510 - Bare ground
847 - Introduced shrub

Significant enhancements for biodiversity net gain, included within the site design include:

- Creation of semi-natural habitat and habitats of medium or higher distinctiveness within the Main site landscaping (including areas of open mosaic habitat, urban trees and broadleaved woodland).
- Enhancements to habitat condition, for example from poor or moderate to good (improving habitats on site), for retained habitats.
- Enhancement of existing habitats within Areas 1, 2 and 4 to create OMHoPDL will generate high distinctiveness habitat units which can be used to offset the loss of these habitats within the Main site.
- Inclusion of materials present onsite, such as re-use of soils, substrates, harvested seed and green hay.



Biodiversity Net Gain – Construction boundary: Pre-development habitats

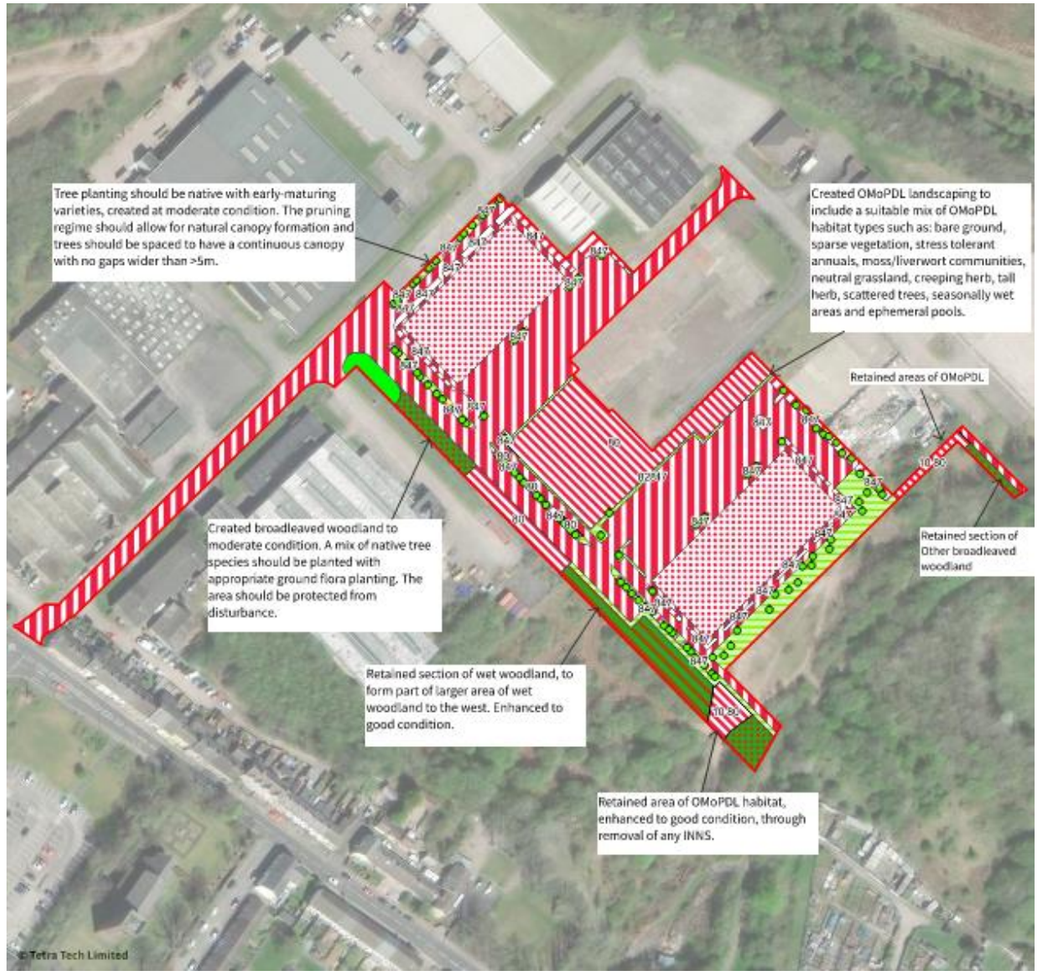
Nature & Public Spaces

Biodiversity Net Gain – Construction Boundary

Legend

- Construction boundary
- g3c - Other neutral grassland
- g4 - Modified grassland
- u1 - Built-up areas and gardens
- u1b - Developed land, sealed surface
- u1b5 - Buildings
- u1f - Sparsely vegetated urban land
- w1d - Wet woodland
- w1g - Other woodland, broadleaved
- h2a5 - Species-rich native hedgerow
- Urban tree

Secondary Code:
10 - Scattered scrub
90 - Ditch
80 - Open mosaic habitats on previously developed land
81 - Ruderal or ephemeral
810 - Bare ground
828 - Vegetated gardens
847 - Introduced shrub



Biodiversity Net Gain – Construction boundary – Post-development habitats

Nature & Public Spaces

Biodiversity Net Gain – Enhancement

Legend

- Construction boundary
- Ownership boundary
- BNG offsetting areas
- g3c - Other neutral grassland
- g4 - Modified grassland
- h3d - Bramble scrub
- u1b - Developed land, sealed surface
- u1f - Sparsely vegetated urban land
- w1d - Wet woodland
- w1g - Other woodland, broadleaved
- Urban trees (6)

Secondary Codes:
10 - Scattered scrub
80 - Open mosaic habitats on previously developed land
81 - Ruderal or ephemeral

Symbology defined by UK Habs. https://ukhab.org/ukhab-documentation/

Within Area 1 and 2, all the existing habitats; with the exception of the woodland and individual trees, will be enhanced to OMHoPDL habitat. This includes the other neutral grassland, bramble scrub, ruderal / ephemeral and developed land; sealed surface. The existing wet woodland will be enhanced from moderate to good condition.

The existing wet woodland within Area 3 will be enhanced to good condition. Any retained OMHoPDL in Area 4 will be enhanced to good condition.

Biodiversity Net Gain – Off-setting areas Pre-intervention habitats

Nature & Public Spaces

Biodiversity Net Gain – Enhancement

Legend

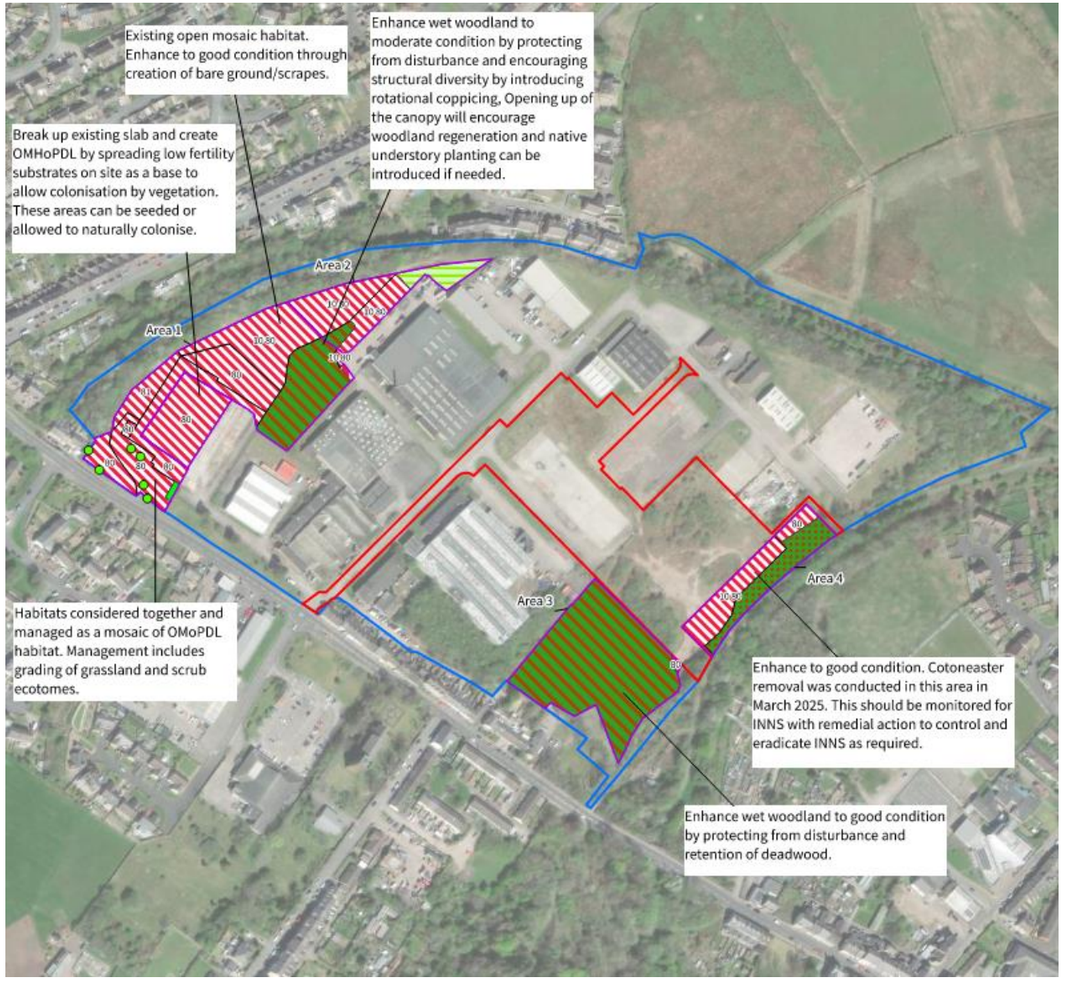
- Construction boundary
- Ownership boundary
- BNG offsetting areas
- g3c - Other neutral grassland
- g4 - Modified grassland
- u1b - Developed land, sealed surface
- u1f - Sparsely vegetated urban land
- w1d - Wet woodland
- w1g - Other woodland, broadleaved
- Urban trees

Secondary Codes:
10 - Scattered scrub
80 - Open mosaic habitats on previously developed land
81 - Ruderal or ephemeral

Symbology defined by UK Habs. https://ukhab.org/ukhab-documentation/

BNG Headline results for the construction boundary and offsetting areas

Project Stage	Habitat Type	Units
On-site baseline Construction boundary and BNG offsetting areas	Habitat units	20.20
	Hedgerow units	0.00
On site post-intervention	Habitat units	7.11
	Hedgerow units	4.07
On site Total net unit change	Habitat units	-13.09
	Hedgerow units	4.07
Off-site baseline (BNG offsetting areas)	Habitat units	22.56
	Hedgerow units	0.00
Off-site post-intervention	Habitat units	37.72
	Hedgerow units	0.00
Off-site Total net unit change	Habitat units	15.16
	Hedgerow units	0.00
Total percentage change	Habitat units	10.25%
	Hedgerow units	N/A
Trading rules met?		YES



Biodiversity Net Gain – Off-setting areas Post-intervention habitats

5
USES

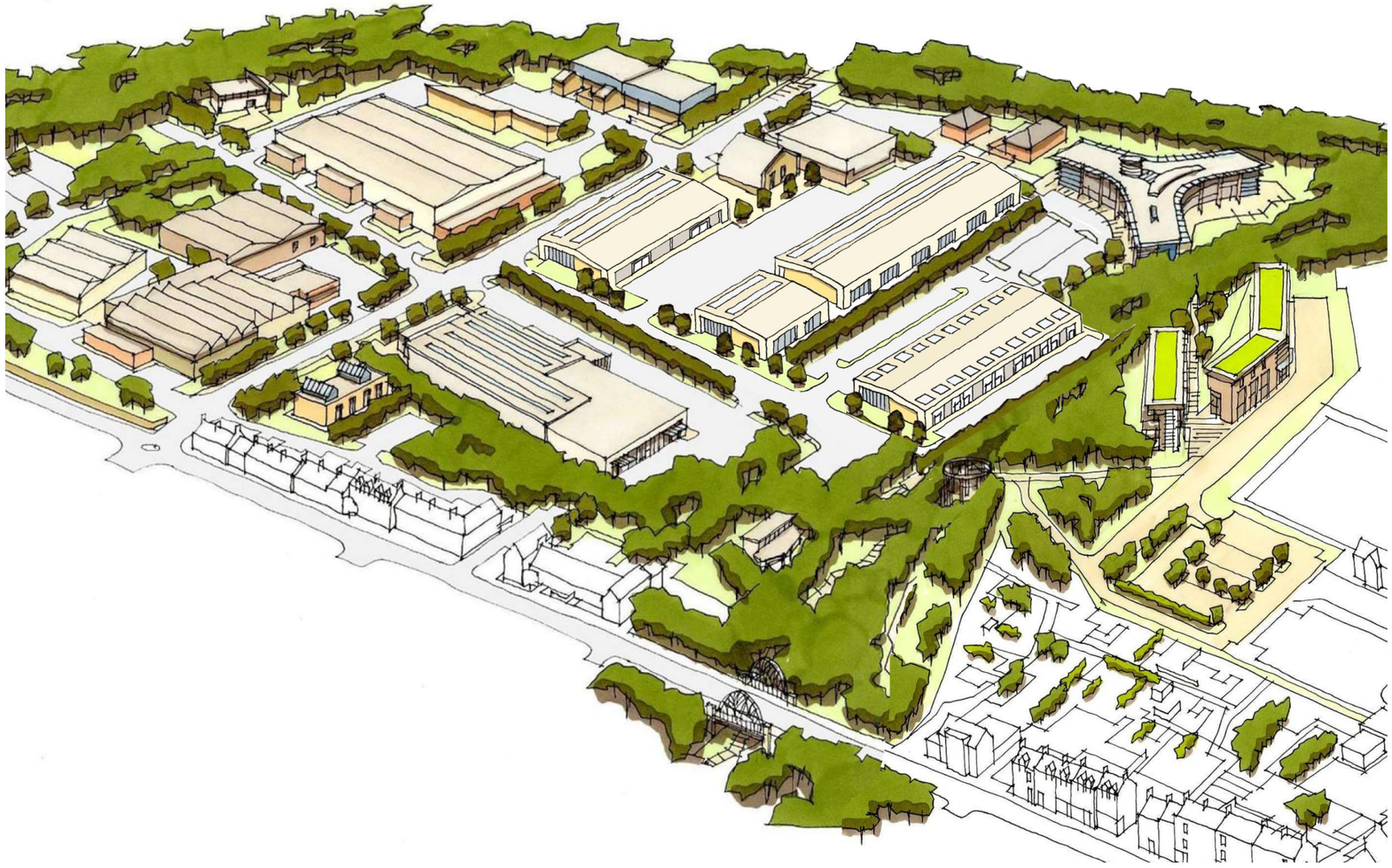
Uses

Proposed Use

Proposed Use Class for all the units is B2 General Industrial. Tenants will be new and emerging businesses and build upon the existing supply chain, knowledge and engineering capabilities in the new nuclear and clean energy sectors in West Cumbria.

The provision of modern and flexible workspaces that can cater for all needs will enable these businesses to focus on a core of solutions driven engineering collaboration, innovation and diversification.

The proposal will enable Cleator Moor to play a major part in the UK's drive to continue to be an engineering and creative world leader, which will benefit the town and wider region long term. The proposed development is a once in a lifetime improvement that will have a sustainable benefit and a far-reaching impact for many generations to come, bringing in new prosperity to the town.



STATUS A4 - AUTHORISED (MSC) - no Comments

6
BUILDINGS

Buildings

Accessibility

The ‘Grow On’ units are equal in overall size with some differentiation in mezzanine size between the plots and follow a simple premise. Entrance glazing is provided to the outer fringe creating a public face for the plot. Glazing spans both ground and mezzanine level. A cut out of the mezzanine floor provides a double height entrance that is inviting, generous and alludes to the volume of the internal space. Any cellular accommodation (incl. WC and kitchen) will be contained within the ‘front’ of the units due to its storey breakdown. The double storey ‘rear’ of the units is unsuitable for compartmentation and is envisaged as the workshop area to the units. We have therefore provided a sectional overhead door and separate rear entrance door to the service yard behind for ease of servicing and delivery. Additional clerestory glazing is provided above the doors for the natural lighting of the workshop. Rooflights are situated above the mezzanine to bring natural light into the centre of the plan.

Stair provision is located on the main frontage to ensure appropriate fire egress of the mezzanine floor and immediate evacuation. This location also enables the potential extension of the mezzanine level within acceptable fire engineering parameters. End units provide access and escape to the roof level via extended stair and caged ladder.

Those elements of the building that require regular cleaning and/or maintenance have been considered carefully by the team to ensure they can be accessed and carried out safely within the framework of the CDM Regulations. These include:

- Cleaning of external glazing
- Inspection and maintenance of the façade, roofs and gutters
- Cleaning and maintenance of internal glazing, ceilings and lights

Unit 9 Ground Floor

Unit 9 First Floor

STATUS A4 - AUTHORISED (MSC) - no Comments

Buildings

Appearance

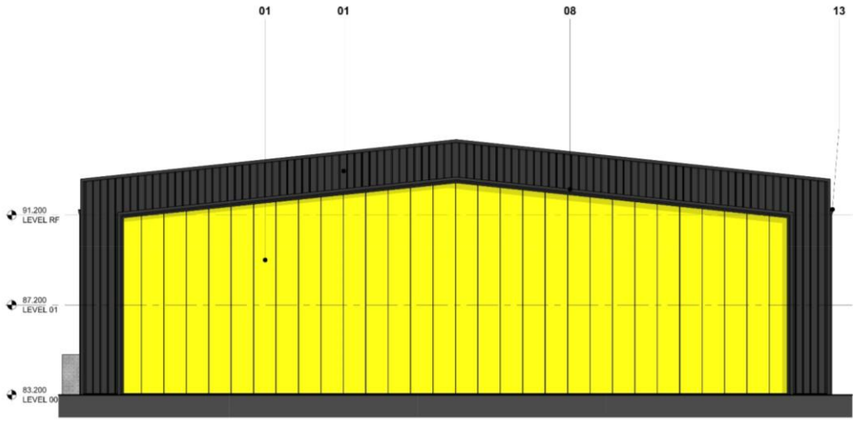
A simple material palette was chosen with the use of high-quality industrial materials with strong but simple aesthetics. A muted black cladding external envelope forms the basis of the proposal and will align with that of the adjacent Hub building. A vibrant accent colour cladding to gables and parts of the service elevations give the unit individuality and assist wayfinding on the estate. Curtainwall elements indicate public front entrances and principal gables along the southern access road to provide a live frontage. Roofs are populated with rooflights and PV panel array.

The buildings shall be designed to achieve the current Buildings Regulations Part L requirements. The development aim should be to achieve an EPC (Energy Performance Certificate) 'A' rating. The design should emphasize cross ventilation and allow for natural ventilation through operable windows. This will be enhanced by ensuring windows and doors maintain airtightness when closed.

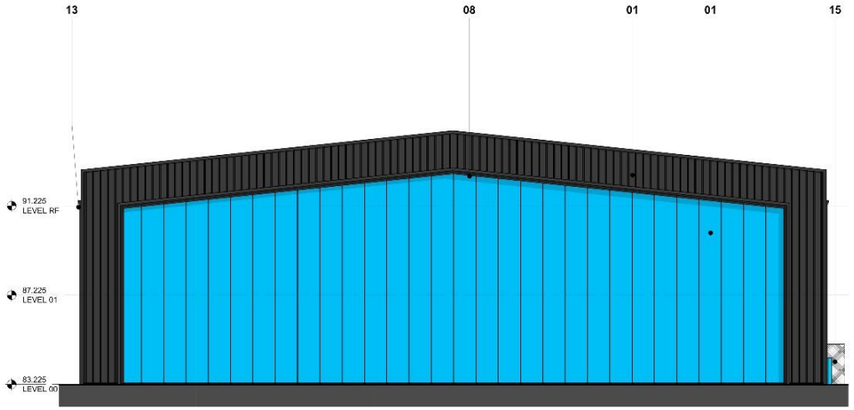
PROPOSED MATERIALS

01. PPC ALUMINIUM COMPOSITE CLADDING (TRAP / MICR)
COLOUR: BLACK / FEATURE (TBC)
02. PPC OVERHEAD SECTIONAL DOOR
COLOUR: BLACK (TBC)
03. PPC ALUMINIUM DOOR (GLAZED, SOLID, LOUVRE)
COLOUR: BLACK (TBC)
04. PPC ALUMINIUM CURTAIN WALL
COLOUR: BLACK (TBC)
05. PPC ALUMINIUM WINDOW
COLOUR: BLACK (TBC)
06. PPC ALUMINIUM LOUVRE
COLOUR: BLACK (TBC)
07. INSULATED GLAZED SPANDREL PANEL
COLOUR: GREY (TBC)
08. PPC ALUMINIUM FLASHING
COLOUR: BLACK / FEATURE (TBC)
09. PPC ROOF HATCH
COLOUR: BLACK (TBC)
10. PPC ALUMINIUM ROOFLIGHTS
COLOUR: BLACK (TBC)
11. PHOTOVOLTAIC PANELS (ARRANGEMENT INDICATIVE)
COLOUR: N/A
12. BALLASTED HANDRAIL
COLOUR: GALVANISED STEEL (TBC)
13. RAINWATER GOODS
COLOUR: BLACK (TBC)
14. FEATURE SIGNAGE (INDICATIVE - TBC)
COLOUR: STAINLESS STEEL (TBC)
15. AIR PUMP UNIT CAGE
COLOUR: GALVANISED STEEL (TBC)
16. SAFETY BOLLARD
COLOUR: TBC

NOTE: BAT BOX NUMBERS AND LOCATIONS TBC

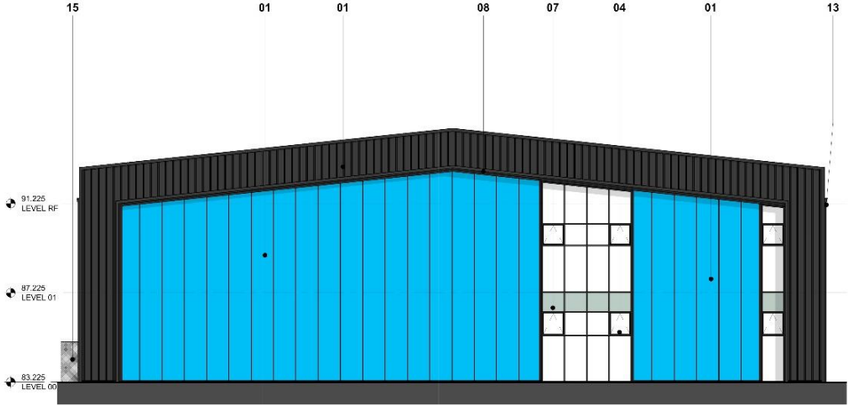


Plot 9 North Elevation



Plot 12 North Elevation

Plot 9 South Elevation

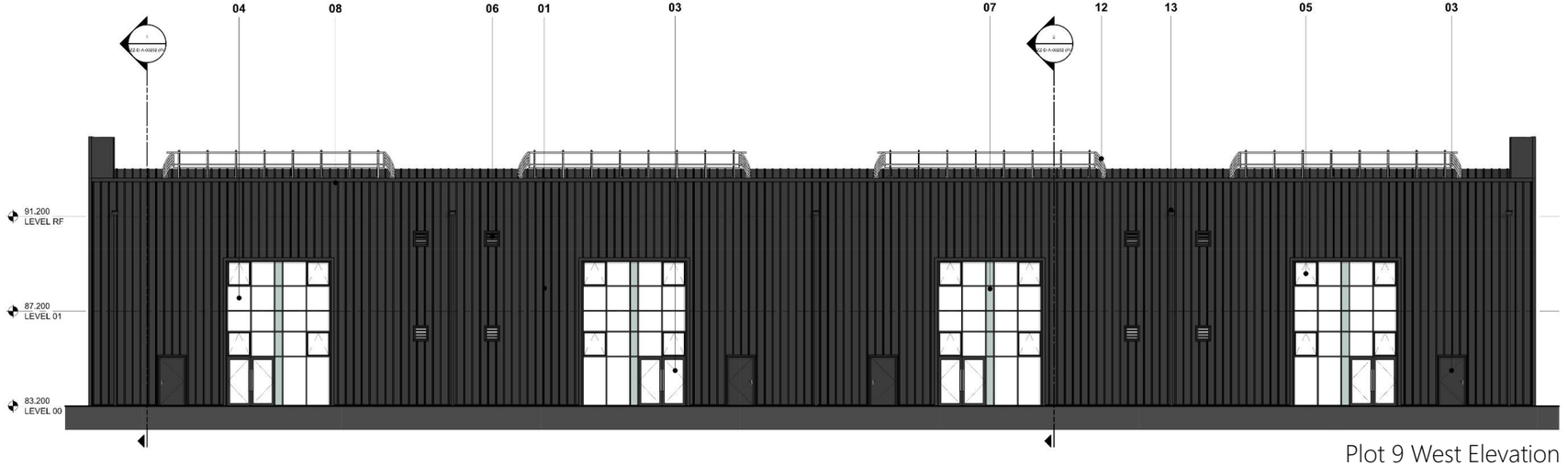


Plot 12 South Elevation

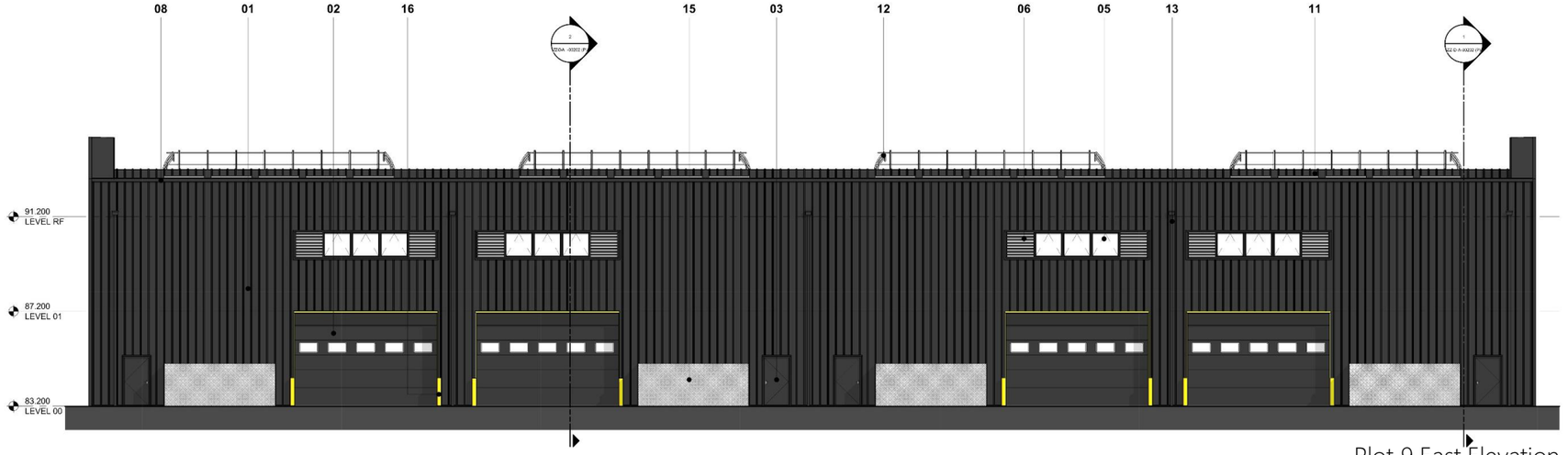
STATUS A4 - AUTHORISED (MSC) - no Comments

Buildings

Appearance



Plot 9 West Elevation



Plot 9 East Elevation

PROPOSED MATERIALS

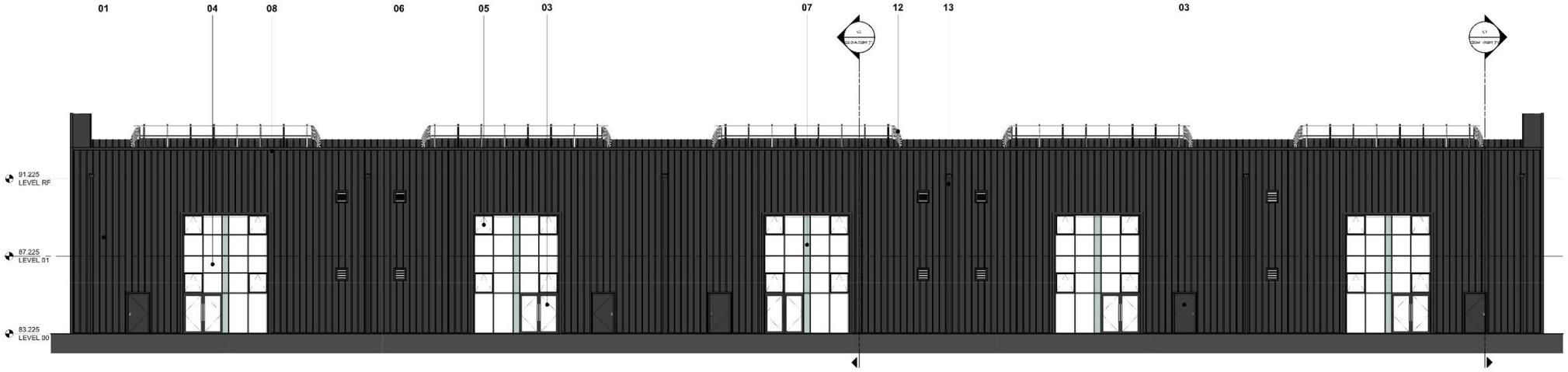
01. PPC ALUMINIUM COMPOSITE CLADDING (TRAP / MICR)
COLOUR: BLACK / FEATURE (TBC)
02. PPC OVERHEAD SECTIONAL DOOR
COLOUR: BLACK (TBC)
03. PPC ALUMINIUM DOOR (GLAZED, SOLID, LOUVRE)
COLOUR: BLACK (TBC)
04. PPC ALUMINIUM CURTAIN WALL
COLOUR: BLACK (TBC)
05. PPC ALUMINIUM WINDOW
COLOUR: BLACK (TBC)
06. PPC ALUMINIUM LOUVRE
COLOUR: BLACK (TBC)
07. INSULATED GLAZED SPANDREL PANEL
COLOUR: GREY (TBC)
08. PPC ALUMINIUM FLASHING
COLOUR: BLACK / FEATURE (TBC)
09. PPC ROOF HATCH
COLOUR: BLACK (TBC)
10. PPC ALUMINIUM ROOFLIGHTS
COLOUR: BLACK (TBC)
11. PHOTOVOLTAIC PANELS (ARRANGEMENT INDICATIVE)
COLOUR: N/A
12. BALLASTED HANDRAIL
COLOUR: GALVANISED STEEL (TBC)
13. RAINWATER GOODS
COLOUR: BLACK (TBC)
14. FEATURE SIGNAGE (INDICATIVE - TBC)
COLOUR: STAINLESS STEEL (TBC)
15. AIR PUMP UNIT CAGE
COLOUR: GALVANISED STEEL (TBC)
16. SAFETY BOLLARD
COLOUR: TBC

NOTE: BAT BOX NUMBERS AND LOCATIONS TBC

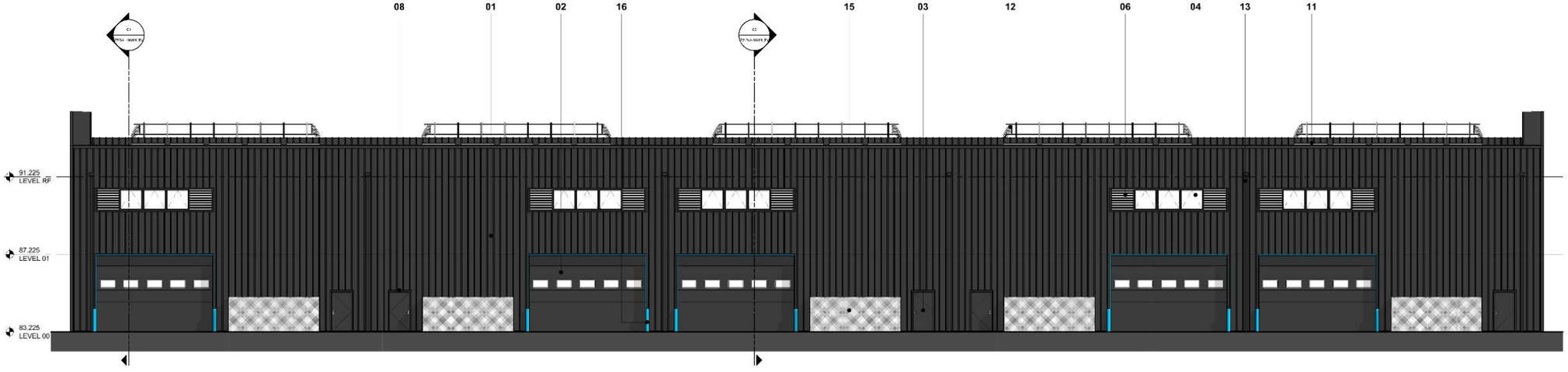
STATUS A4 - AUTHORISED (MSC) - no Comments

Buildings

Appearance



Plot 12 East Elevation



Plot 12 West Elevation

PROPOSED MATERIALS

01. PPC ALUMINIUM COMPOSITE CLADDING (TRAP / MICR)
COLOUR: BLACK / FEATURE (TBC)

02. PPC OVERHEAD SECTIONAL DOOR
COLOUR: BLACK (TBC)

03. PPC ALUMINIUM DOOR (GLAZED, SOLID, LOUVRE)
COLOUR: BLACK (TBC)

04. PPC ALUMINIUM CURTAIN WALL
COLOUR: BLACK (TBC)

05. PPC ALUMINIUM WINDOW
COLOUR: BLACK (TBC)

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COLOUR: BLACK (TBC)

10. PPC ALUMINIUM ROOFLIGHTS
COLOUR: BLACK (TBC)

11. PHOTOVOLTAIC PANELS (ARRANGEMENT INDICATIVE)
COLOUR: N/A

12. BALLASTED HANDRAIL
COLOUR: GALVANISED STEEL (TBC)

13. RAINWATER GOODS
COLOUR: BLACK (TBC)

14. FEATURE SIGNAGE (INDICATIVE - TBC)
COLOUR: STAINLESS STEEL (TBC)

15. AIR PUMP UNIT CAGE
COLOUR: GALVANISED STEEL (TBC)

16. SAFETY BOLLARD
COLOUR: TBC

NOTE: BAT BOX NUMBERS AND LOCATIONS TBC

STATUS A4 - AUTHORISED (MSC) - no Comments

Buildings

Appearance

A shared but simple palette is proposed of high-quality industrial type materials with strong but simple forms and detailing.

The contemporary contrast of black metal trapezoidal cladding 'wrap' around the units and feature gable cladding for identity and wayfinding. All complemented by curtain wall glazing and rooflights. Finish and colours are influenced by the adjacent New Hub but not dictated to establish a new vernacular for the estate.

Some precedent examples are shown to the side as examples of the aesthetic.

7
RESOURCES

Resources

Efficient and Resilient Scheme

Introduction

The mechanical & electrical services strategy for Plots 9 & 12 of Leconfield Industrial estate has been developed to ensure compliance with the latest building regulations and Part L compliance documents (2021). Although the scheme does not have net zero carbon in operation targets, the systems have been designed to achieve the lowest possible building emissions rate (BER). The units will be installed with LZC technology (Low / Zero Carbon) in the form of air source heat pumps and large photovoltaic (PV) arrays. The PV systems will generate electricity to provide space and domestic hot water heating, whilst also contributing to the power requirements of the incoming business. The mechanical and electrical services in the project have been developed closely with the client and contractor to produce a solution which gives the end users as much flexibility in the workspace as possible whilst also maintaining and comfortable indoor climate.

Approach

A comprehensive thermal modelling exercise has been undertaken at the early stages of design to inform and optimise the energy performance of the proposed buildings. This modelling process focused first on delivering a low-energy building envelope, maximising passive design measures such as insulation, airtightness, and natural ventilation potential before the specification of active systems.

The objective was to reduce operational energy demand while maintaining a comfortable internal environment for occupants. Following this, the thermal model was used to assess the building's performance against CIBSE TM52 criteria for adaptive thermal comfort. This ensures that the design can maintain comfortable internal conditions under typical summer scenarios without a reliance on mechanical cooling.

In parallel, internal CO_2 concentrations were evaluated to confirm adequate ventilation strategies and occupant wellbeing. These assessments informed key architectural and MEP design decisions, including window opening strategies, ventilation rates, thermal mass optimisation, and zoning. Based on the thermal and environmental performance requirements, the proposed MEP systems have been designed to be both energy-efficient and fit for purpose. Mechanical systems have been sized based on the refined thermal model outputs, and low-carbon technologies are being integrated where appropriate. The approach ensures the provision of high-performing building services that align with environmental performance targets, enhance occupant comfort, and support long-term operational efficiency.

Mechanical Services

The units within Plots 9 & 12 will be produced as shell & core offerings to allow the incoming tenants to fit out the internal areas to suit the needs of their incoming business.

Ventilation

The units will not be provided with ventilation for the shell & core and will require fit-out. Two external Louvers will be installed on the rear façade, ready for fresh air and exhaust connections associated with the main ventilation systems. Two smaller exhaust louvres will be installed on the front façade, ready for connection of toilet extract systems. These systems will need to meet the minimum performance criteria set out in the shell & core Part L BRUKL document.

Heating

The units will be installed with high efficiency air source heat pumps capable of heating the unit when fitted out. Background heating only will be provided as frost protection for the shell & core fit out. The heating pipework will extend to the plant room allowing the incoming tenants to extend new heating circuits from the plant room. Each tenant will then fit out the space heating to suit their requirements.

Water

Mains Cold Water will enter each unit complete with double check valve and stop cock. The pipework will extend to the plant room to connect to the heating fill device before being capped for future extension to serve the tenant requirements.

Electrical Services

It is proposed to adapt the site wide High Voltage (HV) infrastructure to introduce a dedicated 1.5MVA substation to provide low voltage electricity to Plots 9 and 12 in addition to two feeder pillars situated across the site to provide external lighting and charging supplies for Electric vehicles. From the substation individual ducting system shall be installed to provide low voltage single connections to each of the buildings.

Plot 09 – Consists of a single supply to a single MCCB and associated switchboard located within an external kiosk adjacent the building. Power and telecoms will be provided by four individual Low Voltage and Openreach lines entering each section of the building within a dedicated mechanical and electrical utility cupboard before terminating into a suitably sized Distribution Board and Distribution Point respectively.

Plot 12 – Consists of a single supply to a single MCCB and associated switchboard located within an external kiosk adjacent the building. Power and telecoms will be provided by five individual Low Voltage and Openreach lines entering each section of the building within a dedicated mechanical and electrical utility cupboard before terminating into a suitably sized Distribution Board and Distribution Point respectively.

8
LIFESPAN

Lifespan

The following minimum life expectancies are proposed.

Element	Element Name	Min. Life Expectancy (Years)
Structure	Foundations	60
Structure	Slab	60
Structure	Walls	60
Structure	Upper Floors	60
Structure	Roof Structure	60
Structure	Structural Frame	60
structure	Stairs	60
Underground Drainage	Pipes, inspection chambers	60
External Envelope	Roof Covering	25
External Envelope	External walls / cladding	25
External Envelope	Windows and external doors	25
External Envelope	Rooflights	25
Rainwater Disposal	Rainwater pipes, hoppers and gutters	25

STATUS A4 - AUTHORISED (MSC) - no Comments