ACUMEN
Designers & Architects

DESIGN & ACCESS STATEMENT
LAND OFF BARNSLEY ROAD
GRANGE MOOR

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INTRODUCTION

This design and access statement has been prepared by Acumen Designers & Architects, with inputs from the wider design team to accompany a planning application for the erection of a new B2/B8 unit, installation of replacement wind turbine and associated works located at land off Barnsley Road WF4 4DR, which from herin will be referred to as the site.

This document has been produced to outline the design process which has lead to the proposal in its current form. This document should be read in conjunction with the supporting reports and documents submitted as part of the application to ensure the proposal can be assessed on its individual merits.

This document outlines the principle concepts and design principles which have been applied in the design evolution.

This document will outline the clients needs and aspirations, site context and a summary of the design evolution. The document will summarise the key environmental, and contextual design factors.

This statement has been produced and is submitted in accordance with the Town and Country Planning (Development Management Procedure) (England)
(Amendment) Order 2015, CABE Design & Access Guidance, and DCLG Guidance on information requirements and validation.

CONTEXT

GEOGRAPHIC LOCATION

The site is located between the villages of Flockton and Grange Moor. The centre of the site is . located at OS Grid Reference: SE 422177, 415333

The site sits 500 meters to the south of the village of Grange Moor, a former mining village within Kirklees, located around 6 miles from Huddersfield and 9 miles from Wakefield. The village provides local amenities, including a convenience store as well as small food outlets.



Fig.1 location of site. Satellite images from Google Earth

SURROUNDING LAND USE

Fig.2 To the right shows the adjacent land uses within a 0.5km radius of the site.

The map highlights hard standing and built form and its associated use.

Orange - Commercial
Red - residential
Green - Agricultural
Unshaded - Agricultural fields/ woodlands

North
Blacksmiths Arms, Various small businesses, Allotments, Jubilee Way business park and Grange Moor Village

South
Agricultural Fields

East
Agricultural Fields and New hall Farm
Haulage and Livery

West
Agricultural Fields and Grange Moor
A-Maize-ing Maze



CONNECTIVITY

The site is between the M62 motorway and the M1 motorway. The M1 offers north to south connectivity, with the M62 offering east to west connectivity.

The site is located approximately 13 miles southeast of junction 25 of the M62, and 6 miles Northwest of junction 38 of the M1 (no southbound access over 7.5T).

Vehicular access for the site is currently off Barnsley Road A637. It should be noted, that there is a weigh restriction in place for southbound traffic through the village of Flockton. This prohibits vehicles over 7.5T travelling southbound.

To the north is a four armed roundabout, which links to Wakefield Road, A642.

The A637 transects north and south, and is often used as a route between the M1 south and M62 west. The A642, travels east to west, linking Huddersfield and Wakefield.

Public transport and wider traffic observations have been outlined in the supporting information and transport assessment provided by Sanderson Associates as part of the application.

PUBLIC RIGHTS OF WAY

There are no public rights of way through the application site. The nearest PROWs are identified in Fig.3 To the right, which is an extract from the Kirklees council mapping system





EXISTING SITE APPRAISAL

The site is currently occupied by Grange Moor Coach works, GMC Café and Pyramid Structures and consists of two industrial type buildings, a small office building, a café converted from a container and a large outdoor storage area to the west and south of the buildings

The south element of the site is greenfield, and features an in filled quarry, with a collection of mature trees which screen the site. There is also a small seasonal pond to the far south of the site.

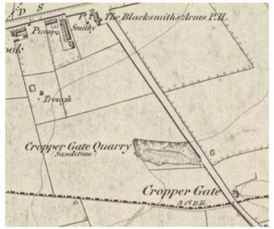
The site falls in two directions from the high point at the Northwest. There is approximately 3m of cross fall over the existing scrapyard from north to south.

The immediate constraints which have informed the site include the properties directly to the north.



Fig.5 to the left shows the existing land uses as per the key below.

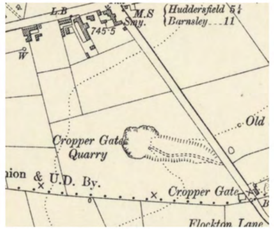
Red - scrap yard & associated buildings
Green - Field
Pink - In filled quarry
Blue - Seasonal pond



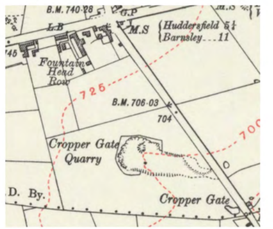
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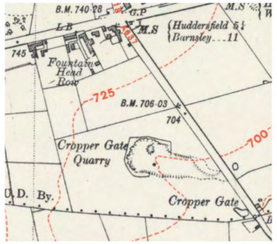
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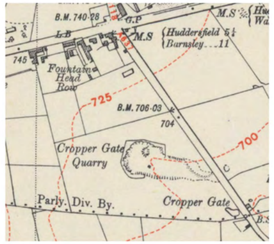
1908



1933



1948



1950



1960



CONTEMPORARY

Fig.6 Showing the previous land uses on the site. The site was formerly partially quarried for sandstone at varying periods, before being abandoned and in filled. It is believed the quarry became a municipal tip. The site was built on circa 1960 and has since been occupied.

EXISTING SCRAPYARD OPERATION

The existing scrapyard on the site has been in operation for well over 20 years. The operation originally expanded to the rear yard of the buildings on site, and then migrated further south.

It is believed the vehicles and machines on site are harvested of usable parts with the remaining frames left with no value on the site.

Due to the nature of the operation, there is significant land contamination due to fuel and other motor oils.

Due to the contamination and the remedial works needed, it is infeasible for this land to return to agricultural useage due to the health concerns associated with the contamination.

Fig.7 Overleaf documents the expansion of the scrapyard operation over the years.



2002



2003



2009



2011



2015



2016



2018



2019



2020



2021



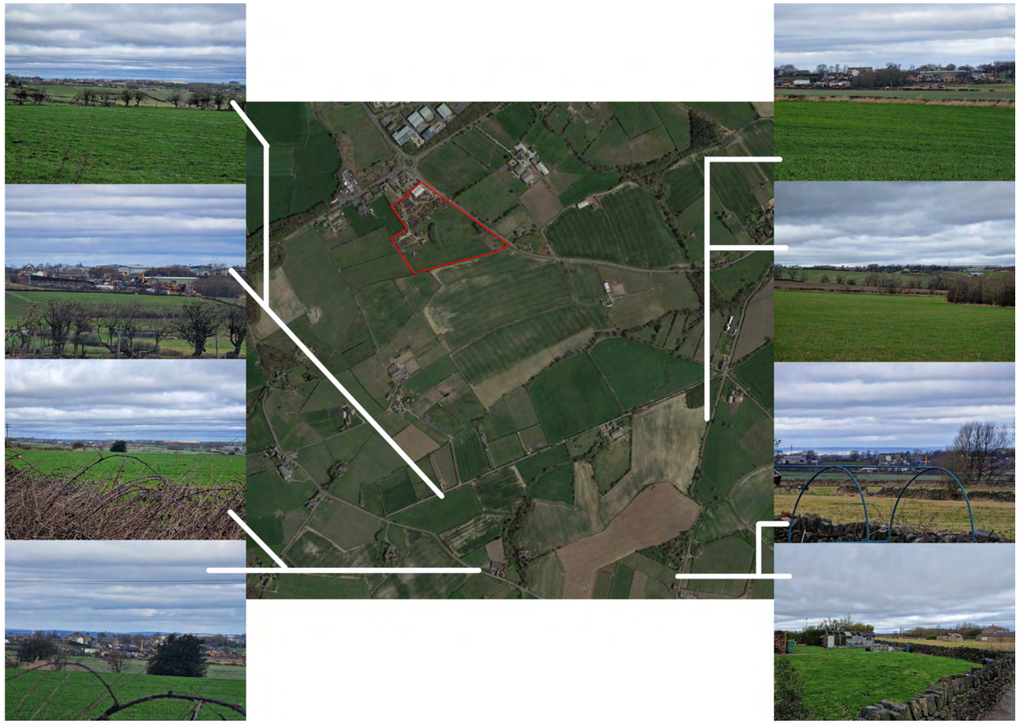
2022

SITE IMAGES

FIG.8 To the right shows the site in its current form from the surrounding context. The site is hidden form most viewpoints due to existing geographical features and woodland.

Fig.9 Shows the site from Barnsley road and the immediate condition of the site.

A visual impact assessment produced by ZEBRA landscape architects for this proposal is included within the application documents.




















THE NEED

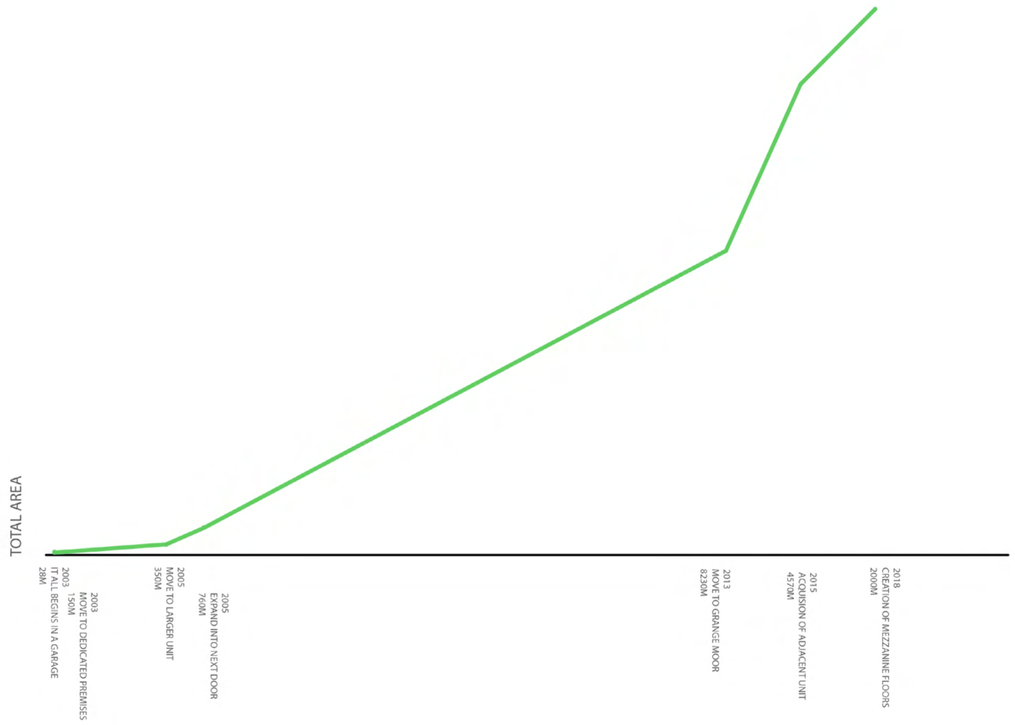
PREVIOUS GROWTH

PCS is a business which has seen substantial growth since its creation in 2003.

The business started in a bedroom, before moving to a garage.

There have then been 3 subsequent moves to larger premises, creating exponential growth in trade and the companies floorspace.

Fig.10 Overleaf shows how the company has grown in usable floorspace (excluding overseas call centres) which shows staggering exponential growth.



CURRENT PCS OPERATION

PCS has been operating from Grange Moor since 2013. Since moving to their current site, they have additionally acquired the neighbouring unit, and then installed mezzanine floors to meet demand.

PCS has operations throughout Europe, include a new customer care office in the Netherlands.

Their current situation at Grange Moor means the work flow is heavily fragmented, and inefficient, meaning orders are not able to be fulfilled in a manner PCS would like.

The existing units are now way beyond maximum capacity.

The management has been looking for a new factory building for a number of years, however there has been no suitable opportunities.

This site allows PCS to remain in the same locality, retaining its existing dedicated team, and allows the company to continue growing to maintain its reputation as one of leading custom PC manufacturers in Europe.

When PCS leave their existing units, these will become available for other medium business' to lease

PCS builds custom specification computers using the latest available technology and components. The company buys in the individual components and assembles pcs to order.

PCS delivers a computer every 4.8 minutes, which is over 100,000 computers per year. PCS ships systems to over 30 companies in Europe, and are able to offer customer support to many of these nations in their local language. The company has registered branches in France, Italy, and Spain, and a subsidiary in Germany. The company is also ISO 9001, ISO 14001 and ISO 45001 certified.

PCS also offers various levels of customisation and water-cooled high end PCs which require elements of on site fabrication.

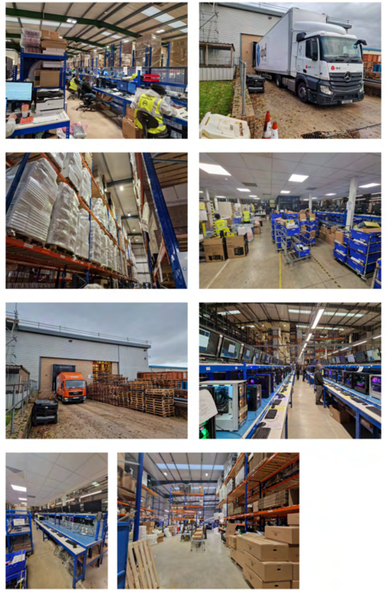
The company has recently grown, and manufactures PCs on behalf of larger retail clients, as well as providing machines to the NHS and education sectors.

Fig.11 Below shows a sample of the PCs on offer





Fig.12 Showing current facilites and internals



PLANNING POLICY

NPPF

The NPPF sets out the Government's planning policies for England and how these are expected to be applied. It states that "The purpose of the planning system is to contribute to the achievement of sustainable development ". This then gives rise to specific guidance for local planning authorities when discharging their duty as local decision makers, namely:

- "Local planning authorities should approach decisions on proposed development in a positive and creative way
- "They [Local Planning Authorities] should use the full range of planning tools available, including brownfield registers and permission in principle, and work pro-actively with applicants to secure developments that will improve the economic, social and environmental conditions of the area. Decision makers at every level should seek to approve applications for sustainable Development where possible ".

BUILDING A STRONG COMPETITIVE ECONOMY

The NPPF requires that the planning system should drive and support sustainable economic development. The NPPF establishes the Government's commitment to ensuring that the planning system does everything it can to support sustainable economic growth and that "**significant weight** should be placed on the need to **support economic growth** and productivity, taking into account both local business needs and wider opportunities for development. "

ACHIEVING WELL DESIGNED PLAC-

The NPPF states that good design is a key element of sustainable development: "In determining applications, great weight should be given to outstanding or innovative designs which promote **high levels of sustainability**, or help **raise** the **standard** of design more generally in an **area**, so long as they fit in with the overall form and layout of their surroundings. "

ADDRESSING THE CHALLENGE OF CLIMATE CHANGE AND FLOODING

- The NPPF identifies the key role the planning system has in supporting the transition to a low carbon future in a changing climate, helping to 'minimise vulnerability and improve resilience. When determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere.
- Conserving and Enhancing the Natural Environment
- The NPPF calls upon the planning system to contribute to and enhance the natural and local environment.
- When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity. Opportunities to incorporate biodiversity in and around developments should be encouraged.
- The decisions of local planning authorities should aim to "prevent new and existing development from contributing to, being put at an unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability."

LOCAL PLAN CONTEXT

The site is identified in the adopted Kirklees local plan as greenbelt.

An accompanying planning statement submitted as part of this application outlines the policy context of this application, and the identification of insufficient employment development opportunities within the local plan and how we believe this application demonstrates special circumstances.

PLANNING STATEMENT

A full planning policy appraisal is included as part of this application which explores the full planning policy context of this application.

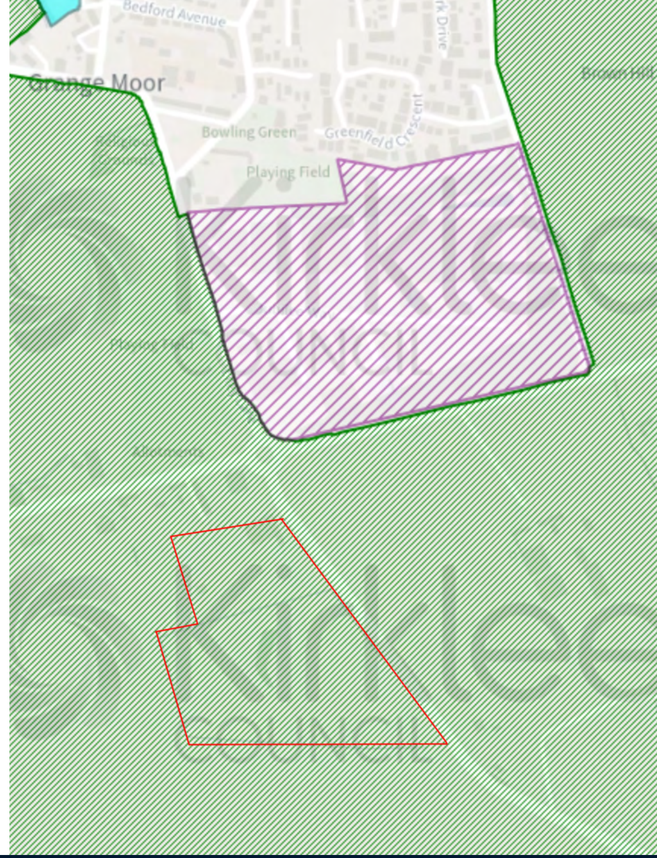


Fig.13 Extract from the Kirklees local plan mapping system with site outlined red

THE PROPOSAL

LAYOUT

The layout of the site and master planning has been carefully considered to mitigate visual impact where possible and to ensure the scheme is visually sensitive to the area.

The over-ruling design driver is maintaining the open-ness and character of the green belt where possible within this scheme.

The proposed layout sees the parking zones to the south, with the building to the north. The building has been placed to the north to provide continuity to the building line to the north of the site. This will allow the scheme to be perceived as part of the existing developed mass with minimal impact.

The proposed yard area is to the north, to avoid further potential visual impact, by unloading and loading operations. The proposed loading access is one way to restrict delivery movement within the site and to minimise the yard size. The use of sawtooth loading docks has been implemented to reduce the yard size further

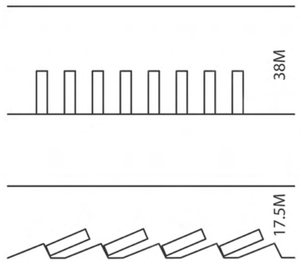


Fig.14 Showing the reduced yard made possible by sawtooth loading bays

The site has a single proposed access point for all traffic. This is to the south of the building. From this access point cars can access their respective car park, and deliveries can enter the delivery airlock and the yard to the north of the building. All goods are directed out through a northern exit.

The site has been designed to restrict HGV movements to the south out of the site. The proposed highway detailing carried out by Sandersons Associates demonstrates the exit radii from the goods out exit is too tight for a HGV to turn right through the village of Flockton. The site layout includes highway upgrades, including the creation of a turn right refuge lane for the main entrance. This lane has been designed to allow sufficient space for vehicles turning into site to take refuge without blocking the southbound carriageway.

Within the highway works, there is an improved public foot way, which links into the site to allow for pedestrian link to the north and south for the public and staff.

To the south of the building is a proposed public electric car charging point to encourage the use of electric cars in the area. This is accessed from Barnsley road and has a small refuge area for turning cars to avoid obstructing the highway.

The proposed building has been designed with a further setback from the existing buildings on site to reduce the visual impact. The proposed building sits some 5 meters further back than the existing building line.

The proposed substations are located to the south of the building close to Barnsley Road, to allow for the required grid connection.



Fig.15 Showing access onto site

Orange - Goods out (left turn only) & pedestrian link

Red - All vehicles in & pedestrian link

Blue - Public car charging lay-by

SCALE

The scale of the proposal has been informed by minimum operational requirements of PCS.

The proposed building has been designed in a way such that all manufacturing, assembly and testing is stacked to reduce the buildings footprint where possible.

The warehousing has been designed with a target of 11m from FFL to the underside of the haunch to allow for the most effective storage. The proposed warehousing will adopt the first in first out pallet storage solution to allow for fast stock rotation for bulky items such as PC cases and screens.

The building is 15.5M tall when measured from the lower yard level, and 18m to the top of the tallest anticipated air handling unit within the rooftop plant zone. It should be noted that the rooftop plant zone will not be readable from ground level due to its deliberate positioning in the centre of the building.

To reduce visual impact, the building has been set down some 3m from the existing ground level. This also means the yard zone to the north is sunken to avoid further visual and acoustic impact.

A full visual impact assessment has been submitted alongside this application produced by ZEBRA landscape architects, which fully assesses the impact the proposal has on the immediate and wider context.

BUILDING FORM & ORIENTATION

The form of the building is driven by the operational requirements of PCS to ensure the most efficient internal layout can be implemented. The building needed to accommodate a large area of warehousing due to the high stock turnover, as well as mezzanine decks stacked to allow for the most efficient internal process.

The loading bays have been positioned to the north to reduce visual impact to the countryside to the south.

PCS are keen to provide a high quality building over and above a typical speculative unit. This has lead to the design of the showcase front elevation.

The building orientation has been determined by the site constraints.

Due to the existing topography of the site, considerable ground works will be needed to achieve the proposal.



Fig.16 Showing the extent of the building set down, and the sunken yard to the north.

DISABLED ACCESS

Internally the building has been designed for inclusive access throughout. Each floor is accessible by passenger lift, and each floor has at least one accessible WC.

Within the application site, defined pedestrian routes will lead to level threshold access into the unit. Internally all doors will achieve a minimum clear width of 800mm in the open position. Any protection and/or fixed objects on circulation routes will not reduce the effective width of the clear space below 750mm. The position of all accessible switches and socket points are to comply with the requirements of Approved Document Part M2, Section 8, diagram 29 - set between the zone of 400mm minimum above finish floor level and a maximum of 1200mm above finish floor level.

USE & AMOUNT

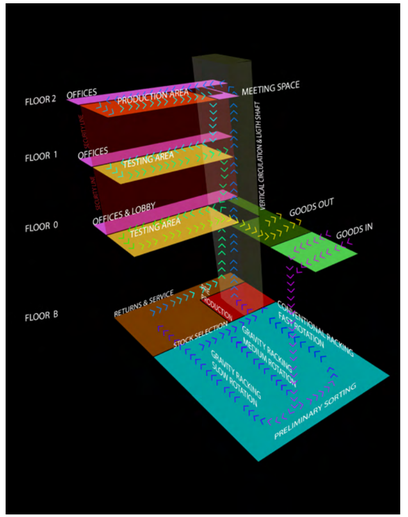
The building has been designed to accommodate 400 staff members on relocation, due to current demand, with a long term view to employing 800-1000 staff in the future on this site.

The building work flow includes -

Loading
Storage
Pre production & picking
Assembly
Testing
Quality Control
Dispatch

The building has been designed using the finished goods down approach, meaning the computers begin their lives on the top mezzanine before working down towards dispatch.

Fig.17 To the right shows initial concept sketches which identify the evolution of the building design based on the process and workflow within.





EXTERNAL SPACES

Immediately south and east of the proposed building are large car parking zones. These are required to remove the possibility of staff and visitors parking on Barnsley Road.

Surrounding the building to the south and west is the yard access road, leading to the yard at the north. The yard design has been minimised by the use of saw tooth docks.

South of the parking is the greenfield element of the site. A full landscape strategy and detailed planting scheme has been submitted as part of this application outlining the proposed planting areas. The proposed planting scheme has been carefully designed and evolved to provide screening and visual uplift of the site from Barnsley Road, when compared to the current situation.

Within the greenfield zone, there is to be a surface water attenuation pond and swale introduced, which forms part of the schemes SUDs proposal. The proposed pond, also allows for ecology uplift as well as break out area for staff in fair weather when on break.

Fig.18 To the right shows the proposed master plan, with the surface water pond location. The detailed plan for the SW pond has been provided by AVIE consulting engineers.



LANDSCAPING

The existing developed area of site has no landscaping.

The proposed scheme includes a detailed planting and management proposal which will ensure the proposed scheme is implemented in line with the drawn proposal.

The landscaping scheme has been carefully considered and developed to provide maximum screening of the development for long distance and up close visual impact.

The existing mature trees on site, adjacent to Barnsley Road and the former quarry are to be retained, and enhanced by supplementary planting including native hedgerows, trees and scrub land planting.

The proposed planting scheme has been developed to include wetland planting for the proposed surface water pond.

The planting scheme for the proposal has been developed by Zebra landscape architects in conjunction with Acumen Designers & Architects and JCA ecological consultants to provide maximum visual screening as well as the creation of suitable ecological habitats.

Please see the respective reports submitted alongside this application for the details of the proposed planting and ecological enhancement.

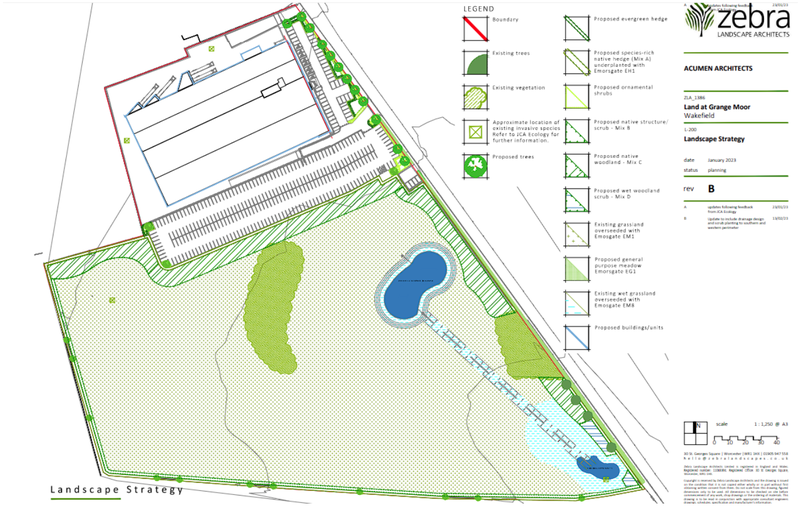


Fig.19 Showing Zebra landscape strategy

SUSTAINABILITY AND ENERGY USE

PCS are committed to sustainability. Their current units have been fitted with solar arrays generating approximately 187,900Kw/ year. The company also has a robust recycling scheme, which sees 95% of waste recycled. The company currently has provision for recycling of polystyrene and plastic packaging products.

The proposed scheme sees a continuation of this commitment, with a full solar array on the roof, as well as the upgrade of the existing on site turbine. The proposed replacement turbine is to be of the same scale of the existing, however will be more efficient model.

The proposed building will be heated using air source heat pumps and mechanical heat recovery from the PCs when on test to ensure wasted energy is kept to a minimum.

The proposal has been developed to allow the scheme to achieve a BREEAM 'very good' recognition.

The proposed scheme includes vehicle charging spaces, as well as public charging spaces within the lay-by.

The use of insulated composite panels will allow the building to achieve a good level of insulation air tightness. The building will be installed with low energy LED lighting throughout, as well as several other energy saving measures such as PIR sensor activation for lifting. The site is connected to the north and south foot ways to encourage pedestrian access and the use of the existing public bus network in the area.

The travel arrangements are outlined in the Sanderson supporting documents.

The proposed construction strategy includes guidance for the buildings built performance, as well as building product specification to minimize embodied carbon in the scheme. This include
- Using FSC certified timber products
-The use of insulated panel construction
- Use of a steel frame construction (100% recyclable)
- Remediation of contaminated soils currently on site.

The construction of a building and hard standing is the only available solution to the remediation of this contaminated site.

ENHANCED MEASURES

PCS are aware of the climate emergency declared by Kirklees council, and this application strives to set an example of how a locally established business can build a new flagship facility with low carbon development.

The combined effect of the solar PV and wind turbine upgrade aim to move the building as close to net zero as possible.

As previously mentioned, the waste heat form the PC testing process will be captured and transferred elsewhere within the building.

Fig.20 Below shows the location of the propose PV panels (red) and enhance turbine (blue)



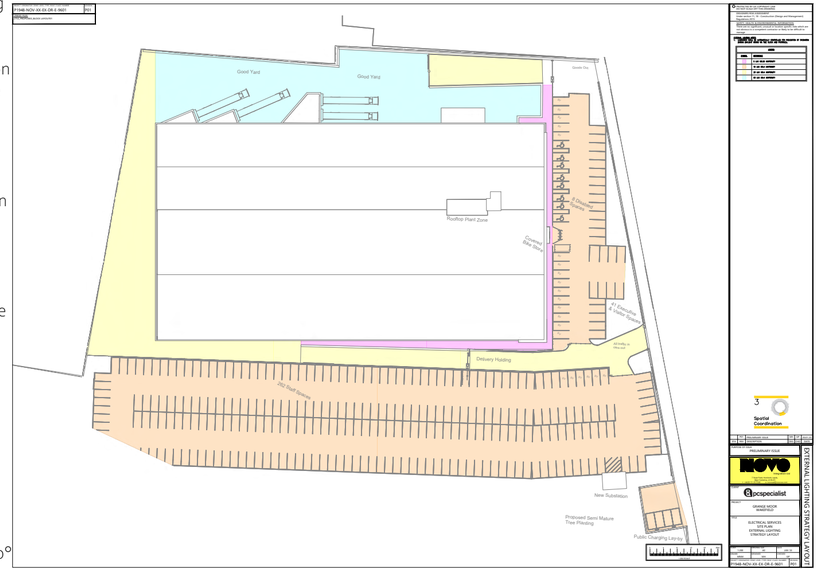
LIGHTING

The existing lighting will be introduced for external areas for operational safety, as well as site security. The proposed lighting will be designed to offer minimal glare off site, and will be downward facing to avoid excess light pollution.

Fig.21 To the right shows the target Lux illumination levels for the site for the various external uses. The lighting proposal has been carried out by NOVO who's proposed drawings have been submitted as part of this application.

To minimise ecological impact the following design factors have been observed -

Selection of 3000K Warm white LED's on the eastern perimeter
Lighting, with shields/hoods to minimise spill to the surrounding
Areas along the eastern perimeter.
• Limit lighting column heights to 12m around the site.
• The use of lighting control systems and sensors to ensure that lights only illuminate areas when required and during operational times of the various areas, to avoid unnecessary constant illumination, while satisfying health and safety requirements for the development.
• Positioning lights at angles of not greater than 90° to the ground to reduce overspill of light and sky glow.



MATERIALITY & FORM

PCS are wanting to create a statement piece of architecture, using the latest materials and architectural technology available.

The principle elevation of the building, fronting onto Barnsley Road, features larger areas of curtain walling, enhanced by oversized horizontal mullions which help reduce excess solar gain.

The proposed showcase elevation creates a feature on approach to the roundabout, while the building is visible prior to the planting reaching the target 15 year maturity.

The proposed wrap around form, takes inspiration from the strong geometric forms found on computer cases and in the technological world. The wrap around feature in contrasting material creates a pop out feature which frames the curtain walling.

The proposed materiality is informed by the scale of the development, where curtain wall composite cladding is able to provide security, low maintenance and high thermal performance.

As the cladding is low maintenance, it ensures the building will remain looking clean with minimal risk of looking untidy due to algae growth or water staining associated with other building finishes.









Fig.22 Showing features and materiality which have been used as inspiration

COLOUR SELECTION

The proposed scheme is based on two key colours with low saturations.

The proposed front cladding frame is to be clad in black to provide visual contrast. The main warehouse is to be clad in goose wing grey composite cladding.

The selection of light coloured cladding is deliberate to allow the building to match the sky hues as closely as possible.

Often on large warehouses, a multi coloured banded approach is used to give the illusion of the building getting lighter to the top. This did not work on this scheme and created a complicated clash of styles at the junction of the front frame feature as too many elements were fighting for dominance It was therefore decided a solid colour would be most effective and visually sensitive.

The use of coloured cladding has been purposefully avoided, as the current machines on site are highly prominent and visible due to their colours.








Fig.23 Showing features and materiality which have been used as inspiration

Fig. 24 Showing proposed elevation treatments



SITE SECURITY

Site security is a high priority for PCS and considerable review has gone into the design strategy for on site security.

The existing units at Grange Moor feature complex security measures including high security perimeter fencing and interlocking alarm systems.

PCS take security seriously due to the nature of their operation and the value of the goods handled.

The proposed building is entirely surrounded by an anti climb mesh fencing with electric top wires. All staff and visitors will enter the building through the main front door, which is behind , man pass turnstiles which form part of the secure perimeter.

Within the building the staff recreation areas and canteen will be within the low security zone with less restrictive access control.

All production and office areas will be subject to security screening on entry and exit, forming an internal high security zone within the building.

The site is protected from unauthorised vehicle access when out of hours by a sliding high security gate. This gate will only close when the building is closed, avoiding congestion to Barnsley Road.

There are then further gates and barriers which will be remotely operated or controlled with ANPR systems as part of the whole building security protocol.

The whole site will be monitored by CCTV with remote guarding and alerts.

The proposed high security fencing will only be apparent when up close, as the proposed landscape screens will obscure these from view.

The other proposed boundary treatments have been submitted as part of the application.

CONCLUSION

The existing site is littered with discarded industrial machines and excavators which are polluting the local environment. The machines on the site are highly prominent from a distance creating a jarring landscape feature, with low employment or public benefit.

There is no alternative remediation for this site which could realistically be brought to light, due to the considerable expense which will be required. To return the land back to agricultural land would not be economically viable.

The existing site condition degrades the area, and reflects poorly for people entering Kirklees from Barnsley and Wakefield.

The proposed scheme sees a local technology manufacture company, with a proven track record of organic growth, able to retain its team. The proposed expansion will offer jobs in the area during construction as well as 200 jobs on completion, with an anticipated additional 400 + jobs to follow if the business is able to follow its projected growth.

The proposed building offers a state of the art facility on the boundary of Kirklees suggesting the council is open for business. The building will be equipped with environmental technology allowing the business to operate as carbon natural.

The proposed landscaping scheme offers a considerable uplift on the sites visual impact as well as a significant ecological uplift to the area.

- Additional 200 jobs immediately on completion

-Additional 400 jobs with projected growth

- Enhanced planting and ecological proposal

- Flagship building

- Carbon neutral building in operation

- Large local emplyer retained

STATEMENT PREPARED BY

ACUMEN

Designers & Architects

FOR PCS PROPERTY SOLUTIONS

LTD.23.02.2023

WRITTEN - JF

CHECKED HG/ JC



Fig.24 - Existing aerial view



Fig.24 - Proposed aerial view