



WASTE MANAGEMENT PLAN

In support of a Full Planning Application for Development of Site for a Warehouse (Class B8 use) with ancillary offices, associated means of access, car parking, servicing and infrastructure, landscaping, ecological mitigation zone and ancillary works

On behalf of FI Real Estate Management Limited

Located at Site 5, Clywedog Road South, Wrexham Industrial Estate

JULY 2022

DOCUMENT REFERENCE: FI002-03V2

OTHER REFERENCES:



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1 PROPOSED DEVELOPMENT

- 1.1 Please refer to the drawings and Design & Access Statement prepared by MCAU.

Layout / floorspace

- 1.2 The proposed development comprises a contemporary design single employment unit orientated north to south. It will be rectangular in shape with an attached office pod that will be located onto its southern elevation facing south and west.
- 1.3 The floorspace extends to 14,147 sqm (152,287 sq ft) – combined warehouse and ancillary offices. It is arranged as the main warehouse unit with a two storey office pod to the south of the main warehouse. Office space is in ancillary use.
- 1.4 The warehouse height to ridge line is 15.80m with parapet set at 14.00m. This balances the requirement to provide high bay racking storage internally whilst using the lowest practical roof pitch to minimise building height. The office area to south is lower at parapet 11.15m high with the roof set behind.

Use

- 1.5 The unit will be in Use Class B8 warehouse and distribution, office accommodation is ancillary.

Access, car and cycle parking and servicing

- 1.6 Service yard is situated to the west of the warehouse building providing 14 HGV loading bays utilising the existing vehicular access off Clywedog Road South, revised to accommodate the relevant vehicle movements / swept paths. See the Transport Assessment for further detail.
- 1.7 A second access is providing to the southern end of the site to serve the car park that wraps to the front (east) and side (south) of the office area. Parking for 140 vehicles is proposed including 14 accessible spaces and 7 EV charging spaces.
- 1.8 Cycle store for 16 bicycles is provided adjacent to the offices.
- 1.9 Figure 1 provides an extract of the site layout to illustrate.

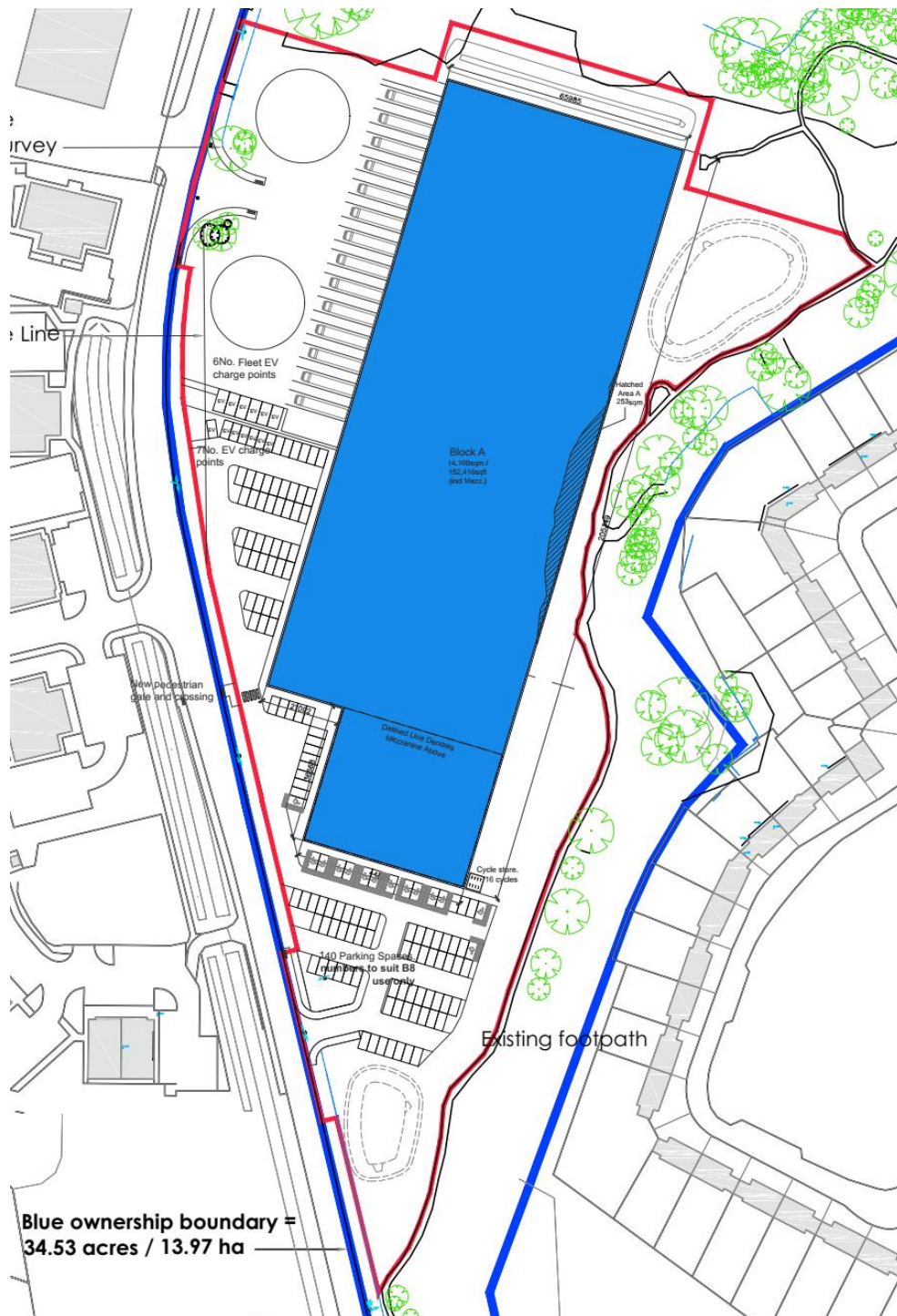


Figure 1: Extract Proposed Site Plan 1200-02-001

2 WASTE HIERARCHY

2.1 The management of waste on site during both the construction and operational phases will adhere to the principles set out in the Waste Hierarchy. Guidance on this is set out in The Guidance on Applying the Waste Hierarchy (January 2012) produced by the Welsh Government.

2.2 Relevant guidance and advice on dealing with waste as set out in the above document will be applied to the project and for each waste stream the opportunities for prevention, reuse, recycling and recovery will be identified and targets will be set accordingly.

Waste Prevention

2.3 Minimising waste production is the simplest way of reducing the need for waste treatment and disposal requirements from the site. Appropriate measures will be applied to prevent the generation of waste.

Waste Reuse

2.4 Reuse will enhance the life of a waste and means it does not need to be treated. Waste will be used instead of virgin materials where suitable. Re-use is separate to the process of recycling.

Recycling

2.5 The process of recycling involves the conversion of a waste into a new product or raw material. Wastes are sorted, cleaned and processed to produce a product or raw material that can be used in either the original or in a new process. Value will be added to the product or raw material as it can be used in place of virgin materials in developments or sold.

Other Recovery

2.6 There are a number of other recovery options focussing on the production of energy. Wastes treatment processes available for different wastes include anaerobic digestion (organic matter), incineration with energy recovery, gasification and pyrolysis (organic matter and plastic). These processes produce energy from the waste (fuels, heat and power).



Disposal

- 2.7 It is possible that some materials may not be fit for reuse/recycling and because of this will need to be removed from site to appropriately permitted landfill facility.
- 2.8 There are three types of landfill:
- Inert Waste – suitable wastes include sub-soil, concrete, bricks, asphalt, glass and stones.
 - Non-Hazardous landfill – suitable wastes include metal, plastic, topsoil, insulation, packaging, timber, (plaster may also be landfilled but in a discrete cell away from degradable materials).
 - Hazardous landfill – suitable wastes include solvent based paints, contaminated soil, contaminated concrete, treated timber, solvent products.



3 CONSTRUCTION WASTE MANAGEMENT

- 3.1 The following principles will be adhered to in the construction phase which will be set out in a Construction Environmental Management Plan (or similar) which can be controlled through appropriate planning condition.
- 3.2 At time of preparing this report it is anticipated the applicant will directly develop the site through its FI Construction arm.

Waste prevention

- Only the required amounts of raw materials will be purchased and used within construction.
- A just in time system will be employed, meaning that only the required amount of material is delivered.
- When ordering materials, the required quantities will be calculated so that only the necessary amount of material will be ordered.
- Materials brought in bulk will be used sparingly to prevent waste, with offcuts used in place of fresh material where possible.
- Excess materials will be returned to the supplier where possible. Engaging with suppliers will allow for purchasing of products that produce minimal waste, e.g. packaging, or waste that can be re-used or recycled.
- The most suitable materials will be chosen for use within the development. Waste will be considered when choosing which materials to purchase.
- Cement and other mixtures will be calculated so that the minimal amount of materials will be used without affecting the quality of the final product.
- Materials will be chosen that will produce minimal waste.
- Modern methods of construction and materials optimisation will be incorporated into the detailed design and implemented on-site to minimise waste arisings.
- Incoming construction materials will be stored in a separate location to wastes.
- The number of stockpiles will be minimised.



Reuse

- Ground works will incorporate opportunities to reuse/recycle excavated material where possible.
- Material may be incorporated back into construction as part of ground. remodelling works. This may be completed under a Materials Management Plan.
- Excavated materials will be subject to chemical analysis to confirm the degree of any contamination.
- Where excavated materials are determined to be geotechnically and chemically suitable for use, these materials will be stockpiled and reused on-site.
- A soil resource survey may need to be completed at the pre-construction phase to characterise soils and identify whether the soils are suitable for reuse.
- Materials may need to meet certain specifications prior to recovery. For example, bricks must meet necessary standards (BS 3921: Specification for Clay Bricks) if they are to be reused within construction.
- Waste exemptions or regulatory position statements may be needed for the use of waste within construction, such as for the construction of paths or walkways. Consideration will be given to building design when using materials such as timber. Timber will be sourced from sustainable sources, labelled with a certified scheme such as those from the Forest Stewardship Council (FSC) or Programme for the Endorsement of Forest Certification (PEFC).
- Factory assembly processes such as pre-fabrication and panelising minimise waste due to the commercialised “production line” process, where repeated production to a high degree of accuracy leads to a reduction in waste.
- Offcuts and wastes in a condition suitable for reuse should take priority over virgin materials.
- Raw materials and wastes that are suitable for reuse will be segregated to avoid cross contamination with other wastes.

Recycling

- Wastes that are to be recycled will be segregated to prevent cross contamination.



- An appropriate exemption or permit will be sought for any onsite treatment, such as crushing or screening activities.
- Raw materials such as concrete, brick, plastics and insulation will incorporate recycled materials where possible. This will minimise the use of virgin materials within the development.
- Alternative reuse and recycling schemes are available. For example, timber may be provided to projects such as the National Community Wood Recycling Project, who will collect waste timber for reuse or recycling, or sold on to other parties. Paints may be reused at other sites through donation and local reuse schemes.

Other recovery

- Materials that are to be sent for energy recovery will be segregated to prevent cross contamination.
- Other recovery options should be used to treat wastes which cannot be managed through the options above.

Disposal

- All possible recovery options will be considered before determining that a waste is suitable for disposal.
- The SWMP will record the predicted quantity of contaminated material to be removed from site to authorised landfill and identify appropriate permitted facilities to which the waste can be taken.



4 OPERATIONAL WASTE MANAGEMENT

4.1 At time of application the end use / tenant is not known, but the use will be as a Class B8 warehouse & distribution facility with ancillary offices. The following principles will apply to the future user, with adaptation as necessary.

Prevention

- A system of waste collection is to be developed for wastes that are produced at the development.
- The commercial tenant will be responsible for correct segregation of waste into the provided bins. Management staff will oversee the transfer and emptying of bins.
- Management staff will educate workers on their responsibility to manage their waste.
- Adequate space will be provided for the storage of waste, both at internal and external storage areas. The provision of sufficient space and capacity to enable the segregation and recycling of wastes will limit the quantity sent for disposal.
- There will also be internal space provided at building management spaces such as the office, to enable the segregation of recyclables and general waste into relevant bins. Bins at indoor or outdoor storage areas will be provided with signage. The provision of a clear visual guide will prevent cross contamination of waste streams.

Reuse

- Wastes will be reused where possible. To promote reuse, schemes may be developed involving the tenant of the development and external organisations.
- Reuse could be undertaken under a reuse scheme.
- Collection boxes may be located at the development for the collection of reusable items. Signage would be provided detailing the relevant items, collected on behalf of organisations or charities.
- Clothes and bulky items may be directly reused at the development, and food waste may be composted at a communal area.



Recycling

- The recycling of wastes will not be directly undertaken at the development. Wastes will be segregated and collected for recycling.
- Containers and bins must be provided to allow for storage of recyclable wastes.
- All tenants must commit to segregating wastes that are produced. Recyclables will be stored in separate bins to general wastes.
- Separate waste storage areas will be provided for both residential and commercial properties.

Other Recovery

- Other recovery options should be used to treat wastes which cannot be managed through the options above. Wastes will be collected by waste management services and sent to facilities such as anaerobic digestion plants and energy from waste facilities as relevant for energy recovery.
- Recovery schemes may be developed such as a composting scheme, which would allow for food and garden waste to be recovered (project viability would depend upon the availability of space and potential amenity issues).
- All possible recovery options will be considered before determining that a waste is suitable for disposal.

Disposal

- Where it is not practical to recover energy from wastes, they will be disposed of at a suitably an authorised landfill.
- Non-recyclable wastes for disposal will be segregated to prevent cross contamination.

5 ARRANGEMENTS

5.1 FIREM commits to ensure during construction FI Construction will adhere to the requirements set out within the Construction Waste Management stage. Should another contractor be appointed FIREM will cascade the requirements of this Plan to the relevant contractor.

5.2 FIREM commits to ensure any future tenant will adhere to the requirements set out in the Operational Waste Management stage and future landlord / tenant leases will set out the responsibilities of each party. Specifically tenants will be held responsible to:

- Collect and manage their own waste.
- Follow industry standards and related regulations relating to the collection, storage and management of waste generate on their premises.
- Wherever possible tenants will be required and encouraged to recycle waste.
- Management and securing of waste will be required and will be the responsibility of tenants.
- Tenants will also be required to dispose of waste including transportation off site for disposal, processing, or other process.
- Leases will cover the matter of waste and how it will be managed on and off site.
- Failure of abide by the terms of these aspects of a lease agreement will be managed and dealt with accordingly by the applicant/landlord.

5.3 The general waste management plan for the proposed development, which will be embedded in leases, will be based on the following options:

- a) Estate joint waste collections – Warehouse & distribution
- b) Tenant own waste collections – Warehouse & distribution

Estate Joint Waste Collections – Warehouse & Distribution

5.4 The waste that will be generated by the unit will be dependent on the type of operations and business that let the new unit.

- The final strategy will be agreed once the known tenant is in place.



- The strategy is for the waste to be stored within the unit and brought out to the front of the unit for collection on an agreed day. The collection schedule will have to vary dependent on the type of operations operating in each unit. The type of bin will again be dependent on the type of operation.

Tenant Own Waste Collections – Warehouse & Distribution

- The tenant of the unit proposed under the proposed development is expected to organise direct agreements and arrangements with waste collection companies. The type and frequency of the collections will be tailored to the nature of the business that rents the unit.
- The final strategy will be agreed once the tenant is in place, but it is expected that the tenant will organise direct agreements for waste collections.
- The strategy is for the waste to be stored within the unit and brought out to the front of the unit for collection on an agreed day. The collection schedule will vary dependent on the type of operation the occupier is involved in. The type of bin will again be dependent on the type of operation.