Arc Bauen

EXECUTIVE SUMMARY

The works to the site incorporate the construction of a Class A1 food retail store together with welfare accommodation, associated car park and landscape work. This report outlines how this project will be constructed efficiently under controlled environmental conditions.

The report considers and provides methods to ensure the disruption to adjacent site occupiers and road users are minimised.

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1.0 INTRODUCTION

This report has been prepared for the benefit, use and information of the Client, as well as providing a clear statement of the processes incorporated by Arc Bauen Ltd.

This report is a qualified assessment based on current information and is subject to refinement as the project evolves. We have prepared our report to outline how this project will be constructed including a review of the construction methodology and site logistics in line with recommendations in PPG 6 – Working at Construction and demolition sites (www.netregs.org.uk)

This report describes the proposed outline programme and key activities for the construction of a Class A1 food retail store, together with welfare accommodation, associated car parking and landscaping work. Potentially significant environmental impacts associated with these activities are identified and, where necessary, proposals for mitigation are outlined.

2.0 PROGRAMME OF WORKS

The total duration for the works is twenty eight weeks inclusive of all snagging. On completion of the works the Client takes one week to stock the store in readiness for trading.

Project Start Date: January, 2022 (actual date TBA) Practical Completion: August, 2022(actual date TBA) Store Grand Opening August, 2022 (actual date TBA)

3.0 CONSTRUCTION TRAFFIC MANAGEMENT PLAN

The management of construction traffic is key to the success of this project and will reduce the impact of the works on surrounding neighbours and local road users.

3.1 Routes to Site

It is anticipated traffic to the site will use Eastern Promenade or A4106 from M4 Jn 37

3.2 Public Transport Routes

Local labour resources are encouraged to use public transport to reach the project and bus stops are available near the site off the Eastern Promenade, services running to and from Bridgend and Pyle

3.3 Hours of Work

It is anticipated that the core working hours for the construction will be set out as follows:

0800 - 1800 hours Weekdays 0800 - 1300 hours Saturday

We do not anticipate working on Sunday or Bank/Public Holidays.

Although night-time working will not normally be undertaken, it is expected that the store clean will take place at night outside of the approved hours, but this will not create any amenity issues, nor given the store location relative to the adjacent river

3.4 Construction Vehicle Movements

Approximate vehicle movements for the Proposed Development are shown in the below table including operatives using public transport, traveling on foot and cycling

Activity	Approximate HGV Movements	Approximate 3.5T Van Movements	Approximate car/van Movements	Public Transport/On foot/Cycling
Site Establishment	10	10	5	10
Substructure/Ground Formation	120	40	60	30
Superstructure	30	40	40	30
Fit Out	60	50	100	40
Total number of movements for the	220	150	205	110



whole project		

3.6 Project site set up plan

The Project Site Set Up Plan for Build phase (appended to this CEMP – Appendix A) identifies the location of the following on areas on site for the duration of the project

- Vehicular access
- Pedestrian access
- Welfare facilities
- Materials storage
- Waste management
- On-site parking
- Assembly point
- Smoking area

The Site Manager will be responsible for the logistics of the deliveries and materials storage. This is to minimise both offsite and on-site congestion. Material storage will be in phases with easy access to minimise breakage and waste. The delivery vehicles will enter site and egress the site in a forward movement. The vehicles for site management/visitors and operatives are to be parked in the designated areas. There will be a general policy of no off-site car parking and the site labour force will be encouraged to share rides or use public transport.

3.7 Deliveries

All deliveries will be organised through the Site Manager so that he can prepare the site to receive the delivery. The site set-up requires use of the existing car park, a bowser will be provided at the site entrance, and vehicle wheels and axles will be cleaned prior to joining the public highway. All deliveries will need to be kept off the highway. The site entrance will be clearly identified, and deliveries will arrive at a designated time windows so that vehicles can enter and egress the site in a forward driving manoeuvre.

3.8 Craneage

The only craneage will be to lift and install the structural steelwork, roofing materials and refrigeration equipment to the rear of the store, crane to be located off fully designed prepared ground

4 MATERIALS AND RESOURCE USE

4.1 Construction Waste

A specialist waste management organisation will be employed during the construction works, with specific responsibility for the coordination of the disposal of all surplus materials, and the management of an effective document control system to track and confirm that the proper procedures have been followed. The location of the waste handling site that the materials will be taken to will be dependent upon their specific make up, but we anticipate that sites close to the proposed works and within the Bridgend Borough will be used as appropriate. Wherever possible, materials will be recycled and re-used either onsite, or provided for use elsewhere.

The disposal of all waste or other materials removed from the site will be in accordance with the requirements of the Environment Agency, Control of Pollution Act (COPA), 1974 Environment Act 1995, Special Waste Regulations 1996, Duty of Care Regulations 1991 and the Site Waste Management Plan Requirements.

In general, and in accordance with the principles of the UK Government's 'Waste Strategy 2000', a principal aim during construction will be to reduce the amount of waste generated and exported from the Proposed Development site. This approach complies with the waste hierarchy whereby the intention is first to minimise, then to treat at source or compact and, finally, to dispose of off-site as necessary. All relevant contractors will be required to investigate opportunities to minimise and reduce waste generation, such as:

Agreements with material supplies to reduce the amount of packaging or to participate in a packaging take-back scheme.

Implementation of a 'just in time material delivery system to avoid materials being stockpiled, which increases the risk of their damage and disposal as waste.

Attention to material quantity requirements to avoid over-ordering and generation of waste materials.

Re-use of materials wherever possible.

Segregation of waste at source where practical and re-use and recycling materials off-site where re-use on-site in not practical (e.g. through use of an on-site waste segregation facility).

Overall the waste management for the site comprises:

Loads are ordered on a need basis to prevent over ordering and on-site damage.

Waste skips are provided for wood, metal, glass, plasterboard and mixed waste. Skips will be covered to prevent dust and debris blowing around the site and will be cleared on a regular basis. Burning of wastes or unwanted materials will not be permitted on-site. All hazardous materials including chemicals, cleaning agents, solvents and solvent containing products will be properly sealed in containers at the end of each day prior to storage in appropriately protected and bunded storage areas.

4.2 Construction

Estimates of key construction materials are listed below:

400m³ of reinforced concrete
75 tonnes of structural steelwork
350m² blockwork construction
500m² internal walls, partitions and general fit-out materials.

4.3 Plant and Equipment

Consideration has been given to the types of plant that are likely to be used on-site during the construction phases of the Proposed Development. The plant and equipment associated with each key element of the construction process is set out in Table 1.

Table 1: Estimated Types of Plant during the Construction Phase

Plant	Stage		
	Substructure	Superstructure	Fit-out
360° Excavators	✓	✓	
Dumpers	✓	✓	
Concrete pumps	✓	✓	
Mobile Cranes		✓	
MEWPS		✓	✓
Air Compressors	✓	✓	✓
Power Tools	✓	✓	✓
Hand/Power Tools	✓	✓	✓
Scaffold		✓	
Delivery Trucks	✓	✓	✓
Skips and Skip Trucks	✓	✓	✓
Forklift Trucks	✓	✓	✓

Note: ✓ Usage of plant at each stage.

5 PROPOSED CONSTRUCTION METHODOLOGY

5.1 Enabling works /Site set up for demolition and Construction

The existing gateway off the roundabout will be utilised for access to the works area for the construction phase as shown in Appendix A (attached). Site set up includes installation of anti-climb double clipped security Heras fencing and Hoarding to secure the perimeter of the site prior to any works commencing, boundaries and signage will be checked regularly as part of the site managers daily checks, should it become apparent that any breaches of security have occurred the above provisions will be reviewed on a frequent basis.

The measures undertaken in order to ensure the highest standards are achieved for the protection of the public and third parties is at the forefront of our operational planning, the construction manager will continually assess the controls that are in place to ensure public and third party protection including access



5.2 Demolition

There are no existing buildings on site

5.3 Substructure Works

The anticipated substructure works consist of plain concrete pad bases and strip footings on concrete piles together with a suspended reinforced concrete slab. External drainage will also be installed at this time. Foul and storm drainage will discharge into the nearby public sewer connections.

5.4 Superstructure Works

The superstructure works is primarily steel frame construction with a concrete ground floor slab. The external walls are constructed in blockwork and steel frame finished with either white through colour render, Ash and Lacy Ash Plank, timber cladding, smooth black bricks with standing seem roof

5.5 Mechanical and Electrical Services

The store utilises a partial heat recovery system which in plain terms re-uses the expelled warm air from the refrigeration plant and re-cycles it back into the store for heating. The building is controlled by a management system to assist its efficiency and all the electrical and refrigeration equipment is to the latest efficiency standards.

5.6 External Works and Landscaping

It is anticipated that once the structure and building envelopes have been completed the common/service areas surrounding the building will commence, this will include completion of service and drainage lines, landscaping of the surrounding paving and erection of external lighting.

Only when all external works are finalised and the building envelope is completed, will the safety Heras fencing be adjusted, and final 'dressing' of external public areas take place.

The highways element of works will utilise a highways-approved contractor and we will work with them and the Local Authority to agree a construction programme that minimises disruption to local stakeholders.

5.7 Commissioning and Building Handover

As each system is completed throughout the building, then it will be tested in accordance with the mandatory specifications and codes. On completion of all works the buildings and systems shall be subjected to statutory inspections and testing before finally being handed over and occupied by the Client. A safety file is provided for the store, which remains in the store for use by any maintenance operatives.



6. POTENTIAL ENVIRONMENTAL IMPACTS (includes reference to www.netregs.org.uk good practice)

A review has been undertaken of the potential sources of adverse impacts and those who could be affected by the demolition and construction works.

There are 3 main areas of impact at a local level, these are the atmosphere, the land, the water. Potential impacts and mitigation controlled by the CEMP are summarised below; further detail in respect of the potential impact pathways to the adjacent watercourse (Sandy Bay).

Our designated Site Manager will act as Environmental Leader responsible for the daily management and planning of activities. The Site Manager will regularly review all impact risks as identified in the following tables, In the event of any environmental incidents, Natural Resources England must be contacted immediately on 0300 060 3900 (incident hotline active 24/7), should apply to any environmental incident.

	Atmosphere		
	Issue	Potential Impacts	Mitigation Measures
1	Dust	Statutory nuisance under section 79 of the Environmental Protection Act Health Hazard to humans and the surrounding ecology.	Brushing and water spraying of heavily used site hard surfaces and access points as required. Effective wheel/body washing facilities to be provided and used as necessary; size of site may only require a standing point and hose wash. Demolition contractor will damp down during their works Vehicles transporting materials capable of generating dust to and from site to be suitably sheeted on each journey to prevent release of materials and particulate matter. Dust from stockpiled surplus excavated material will be controlled by frequently spraying with water. This process causes the nuisance dust particles to cling together into a larger, heavier mass which results in the surface being more resistant to the effects of wind. In addition, and for any period where the stockpiled remains for more than a few days, the surface of the pile will be sheeted over with tarpaulin. Number of stockpiles will be kept to a minimum with height kept below 3m, also minimise the height from which materials are tipped or dropped during placement.
2	Exhaust Emissions	Statutory nuisance under section 79 of the Environmental Protection Act High Carbon Emissions Health Hazard to humans and the surrounding ecology.	Although the site set up will initially be ran on a generator, it is our aim to switch onto a mains power supply as early as possible thus reducing the local exhaust emissions impact. We will also ensure that all plant and equipment is regularly serviced by the supplier or contractor and actively encourage all contractors to seek out greener and more efficient alternatives for plant and equipment. The generator will only run over night if there is a need to dry clothes within the welfare facilities otherwise, they will be turned off
3	Gases and Vapours	N/A	N/A- There are no anticipated risks beyond those experienced at user/operative level which are managed on site for example in the use of solvents and mastics. The management use and disposal of these will be covered under COSHH Assessments.
4	Noise and Vibration	Statutory nuisance under section 79 of	Off-site pre-fabrication to be used, where practical. All plant and equipment to be used for the works to be properly maintained,



		the Environmental Protection Act Health Hazard to humans and the surrounding ecology Increased road noise levels from vehicles. Increase noise levels from plant during general construction works	silenced where appropriate, and operated to prevent excessive noise and switched off when not in use and where practicable. Plant will be certified to meet relevant current legislation and British Standard BS 5228 standards. All Trade Contractors to be made familiar with current legislation and the guidance in BS5228 (Parts 1 and 2). Loading and unloading of vehicles, dismantling of site equipment such as scaffolding or moving equipment or materials around site will be conducted away from noise sensitive areas. Noise complaints immediately investigated. On-site. Site working hours restricted.
5	Light	Statutory nuisance under section 79 of the Environmental Protection Act Lack of lighting hazard to operatives Potential impact Sandy Bay	On site lighting during the construction phase will not impact the surrounding premises or road users. Any temporary external lighting will be positioned so as not to cause glare and will not be left on unnecessarily after dark/overnight. Temporary internal lighting will be installed as the project develops. The external lighting is controlled by the BMS system, with a time clock allowing 'ON' operation between 06:00-10:00 and 14:00-18:00, however a photocell further inhibits the 'ON' command until darkness.
6	Asbestos	Hazardous to health fibres when released to atmosphere	Any asbestos removal works will be carried out in accordance with the Control of Asbestos Regulations 2012.and managed under regulation 4. ACOP 143 'Managing and working with Asbestos' will be followed and surveys completed as set out n HSG 264 'The survey guide'

	Land			
Issu	le	Potential Impacts	Mitigation Measures	
1	Oils and Fuels	Risk of contamination	Accidental spills, contamination to ground. Temporary fuel bowsers to be double skinned/lined and bund to be fitted as a secure method to ensure no contamination and store in a designated area as set out in the site set up plan and following good practice set out in Guidance for pollution prevention (GPPs) dated January 2017 at www.netregs.org.uk Spill kits to be available and personal trained in the use of cleaning up any contamination and disposing of it appropriately, ensure all deliveries are supervised, don't overorder, use proper fuel dispensing pumps and inspect oil containers frequently Stored in accordance with individual COSHH assessment requirements.	
2	Waste and litter	Risk of vermin, fire, unsightliness and items blowing out of the site area and effecting surrounding areas	Regular collections of waste materials, designated waste streams sorted and segregated on site where possible within a designated area.	
3	Concrete	Ground contamination and run off	Designated impermeable wash out area or lined skip to be used. 10m away from watercourse or surface water drain, away from the site boundary and not near vegetation and trees,	

		during clean out operations	Ensure contained within working area and do not enter any watercourses or surface water drains, follow good practice as noted within 'Concrete on Construction sites at www.netregs.org.uk and PPG 6 to include only ordering the amount of concrete that you need, plan your works and supply good quality gloves for people working with concrete to reduce the quantity of gloves that you have to order and later dispose of.
4	Impacts of Fauna	Potential impact to Sandy Bay (Potential to trigger the conservation of Habitats and Species Regulations 2017	Ramps (created by a plank or similar) will be installed in any trenches or pits left open overnight to provide a means of escape.

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	Water					
	Silt/Slurry/Run off	Risk of run off Blockage of local road gullies Possible flow and risk of pollution to Sandy Bay (potential to trigger the conservation of Habitats and Species Regulations 2017	Impacts to the watercourse from accidental damage or spills during construction will be avoided using silt-traps and containment barriers, installed where required adjacent to the watercourse and other boundaries where deemed necessary, following best practice Gully guards will be utilised to prevent any accidental run off entering the storm water system as a precautionary measure immediately outside the site gates with all drainage onto site double bunged During times where the groundworks contractor has muck away and stone deliveries he will ensure that there are road sweepers in attendance. Wheels will be washed off within the site to remove any clods of mud prior to departure. This will be located with a sump/catch pit in a designated hard standing at least 10m away from any surface waters, the sump will collect this water and capture and settlement of fine particulate that will be removed regularly and the water recycled and reused where possible, excess water will be discharged to foul sewer with prior permission. As part of our induction process contractors will be made aware of their responsibilities and hazardous materials will be suitably stored in areas where they will not affect others or the environment. The arrangements for storage of such items will be detailed in the risk assessments/method statements provided by subcontractors. Contractors will provide COSHH assessments and will ensure that the contents of the assessment are briefed to and are readily available to the operatives using them. Spill kits will be provided consisting of equipment to contain and absorb spills, these will be obtained from a reputable supplier and will be checked to make sure they are specific to the oils and chemicals present on site, the contents of a spill kit are likely to include; Oil-absorbent granules, floating booms, absorbent mats, drain coves, polythene sheeting and bags and will be stored in a marked bag or wheelie bin in a well-signposted location. Other equipment – In decicling the emergency prepar			

CONSTRUCTION & ENVIRONMENTAL MANAGEMENT PLAN



2	Effluent	Ground/water contamination	The site set up will be ran initially of an effluent tank which will be emptied on a minimum of a weekly basis by a licenced waste carrier for proper disposal. As soon as practicable/if possible the facilities will be moved onto mains drainage
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7. Public Relations

The site manager will deal with complaints and enquiries. This individual will be named at the site entrance, with a contact number prior to the start of construction. The site will be controlled by the site manager at all times. There will be regular meetings with representatives from the LA during the construction period to discuss the forthcoming works, potential for environmental impact and effective management of same.

8.0 Tree Protection - N/A

Appendices APPENDIX A

Site set up including welfare location and location of boundary Hoarding/Heras fence

APPENDIX B

Emergency Response Flow chart