

Construction & Environmental Management Plan

Proposed Residential Development
Whitworth Road & Grasmere Street
Rochdale

March 2023

Issue / Revision	Issue 1	Revision 2	Revision 3	Revision 4
Remarks				
Date	07/03/23			
Prepared By	AH			
Signature				
Position	Director			
Reviewed By	KP			
Signature				

Background, Site Location and Context

This report has been prepared to identify and address the potential impacts of construction on the environment in relation to the proposed residential development of 14 apartments at Whitworth Road & Grasmere Street, Rochdale.

The entire development site split into 3 blocks of apartments, Block A (8 unit), B (4 units) and Block C (2 units). Block A resides within a former playground between Whitworth Road to the east, an active car park (accessed via Grasmere Street) to the north, residential properties to the south and Darwent Street to the northwest. Block B adjoins the northwest corner of the car park adjacent to existing residential properties to the west and Grasmere to the north. Block C is located on the opposite side of Grasmere Street to Block B with existing residential properties to the west and north, Grasmere street to the south and sits close to an existing Electricity North West substation to the south east.

Block A will be accessed from Darwent Street, Block B from Grasmere Street and Block B from Grasmere Street on completion.

The proposed site layout can be seen below.



Potential impacts resulting from development

The pertinent impacts resulting from the development are:

- Programme and Working Hours
- Safe Access and Egress
- Security
- Site Welfare Facilities
- Site Cleanliness
- Waste Management
- Noise & Vibration Control

The key objectives are:

- Minimising disturbance and disruption to neighbouring residents, properties and infrastructure
- Preventing damage and harm to the environment
- Preserving health, safety and wellbeing

Site Programme and Working Hours

Strict working hours are to be imposed. No works should take place outside of these times without written approval from the Local Authority

The proposed working hours are as follows:

- **Monday – Friday 08.00 – 18:00**
- **Saturday 08:00 – 13:00.**

No works to take place on Sundays, Bank or Public Holidays.

Safe Access and Egress

The proposed layout of the site for construction purposes is restricted due to its surrounds and therefore access for the works is a key consideration. The site has been planned with 3 separate access points, one from the existing car park to access Block B and the northern and eastern section of Block A, one from Darwent Street to access the southern and western sections of Block A and one from Grasmere Street to access Block C. During the initial enabling, earthworks and ground works phases of the works only the car park access will be utilised for access to Block A and B with the Darwent Street access point only being brought into use for finishing works once the substructure is completed and obstructing access to the west and south sections of Block A.

The existing car park will remain active throughout the works. The southern most portion will be temporarily dedicated to the project for sighting of welfare and storage of materials. Consideration has been given to the arrangement, layout and logistics of using the car park for access and works for block A and B. These can be seen on the Site Strategy Plan provided in Appendix A.

The proposed arrangement of temporary security/safety boundary fencing within the car park area throughout the construction phase allows for safe movement between Block A and B. Materials for Block C will primarily be delivered direct to and stored within the Block C parcel however, where it isn't possible due to the size of the Block C parcel, materials will be transported from the materials storage area located within in the southern area of the existing car park to Block C by travelling along a designated route which can be seen on the Site Strategy Plan.

Materials delivery vehicles will be provided with directions to the appropriate site access and be required to turn off engines to avoid nuisance upon arrival. All delivery vehicles will be able to drive into the development, unload and exit the development safely with the assistance of a banksman where required. A 'ready to use' system of delivery will be implemented and co-ordinated to minimise the storage of materials, plant and equipment on site.

Security

The development will be secured by erecting appropriate temporary fencing along the site boundaries. Existing boundary features that prove adequate will be retained/improved as required. Temporary lockable gates will be provided at each access point. All temporary fencing will be checked regularly by the site management team. Where damage occurs through vandalism or alternative sources the temporary fencing will be repaired immediately. It is proposed that a CCTV security system will be provided throughout the construction phase of the development.

Tree protection fencing will be erected as indicated on the Site Strategy Plan provided in Appendix A to protect trees on and off site where necessary. The specific type, height and fixing arrangement will be issued to the site management team prior to commencement of the works on site. The fencing will remain in place and be maintained throughout construction phases as required. Regular inspections will be undertaken by the site manager.

Site welfare & facilities

Suitable welfare facilities will be provided during the construction phase including canteen, toilets and drying room. The proposed location of the site welfare facilities is indicated on the Site Strategy Plan.

Site Cleanliness

The major contributors to cleanliness include:

- The spread of site generated mud, stones and other extraneous materials within and onto surrounding roads
- Control of dust

Spreading of site generated mud, stones and other extraneous materials

Mud, stones and other extraneous materials are generated throughout the course of the construction phase predominantly by the movement of plant around site, particularly in the wetter months. Minimising generation at source helps to reduce the spread around site and onto surrounding roads.

It is proposed to use the existing hard made (tarmac) surface of the exiting car park (block A & B) and the existing playground (Block A south and west), and to construct proposed permanent hard standings as early as possible to reduce plant movements across unmade ground. Where plant movements across unmade ground are unavoidable, temporary hard standing haul roads constructed from clean granular materials are proposed. Both permanent and temporary hard standings will be maintained throughout the construction phase. Maintenance will include mechanical scraping and sweeping of surface debris to avoid spreading onto surrounding highways. An example of the mechanical system used are provided in Appendix B

An appropriate wheel-washing system will be provided to remove mud, stones and other extraneous materials from the wheels and chassis' of construction vehicles exiting the site. Details of the proposed system are included in Appendix B and the location on the Site Strategy Plan. Wastewater discharged from the wheel washing system shall be stored and disposed of on site and shall not be discharged into the public sewerage system without prior removal of soil, stones and any other suspended materials. Wheel washing will be kept under weekly review, with additional measure taken as necessary based on current site conditions and activities.

If the above measures do not achieve the level of effectiveness and whenever necessary, mechanical road sweeping of surrounding highways will be undertaken. An example of the equipment used are provided in Appendix B.

Control of Dust

Activities undertaken during the demolition and construction phases of a development have the potential to generate fugitive dust emissions. The site is located within a residential area and mitigation measures will therefore be needed to reduce dust effects beyond the site boundary. These are intended to be stringent but achievable and in line with the Best Practical Means (BPM).

Suitable mitigation measures have been identified through a review of The Greater London Authority 'Best Practice Guidance: The Control of Dust and Emissions from Construction and Demolition'. Highall Developments will ensure that all on-site contractors follow BPM at all times to minimise dust emissions. These are set out in the following Sections.

As noted at the start of this CEMP, working hours are restricted. No demolition or construction works will be undertaken outside of these times. In addition, no demolition or construction work will take place on a Sunday, Bank or Public Holidays without express permission of the LPA.

Site preparation

Machinery, fuel storage and dust generating will be located away from the site boundary and sensitive receptor locations as far as practicable.

Training, Awareness and Competency

All site personnel will receive training on health and safety, BPM, site housekeeping and pollution policy. These items will be included as part of site induction training given to every site operative before they're allowed to work on site. Additionally, all staff will be aware of reporting procedures and a trained and responsible site manager will be present during working hours to maintain the logbook and carry out inspections.

Site Layout

Careful consideration will be given to site layout and, where possible, dust generating activities are to be located away from boundaries and sensitive receptors. However, it should be noted that due to the nature of demolition and construction this will not always be possible. Due to the meteorological conditions of the area, wind-blown dust effects are most likely to occur towards the north and east of the site. This will be considered when verifying impacts during routine inspections.

Temporary and permanent hard standing areas

Temporary and permanent hard standing areas for plant movement can account for a significant proportion of fugitive dust emissions. All hard standing areas will be maintained throughout the construction phase including sweeping and scraping if build-up of potential dust generating materials occurs. Regular inspections will be undertaken to ensure hard standings remain as clean as practicable.

Dust Suppression

All routes within the site are to be water sprayed and swept clean as necessary. The use of recycled or 'grey' water for the purposes of the dust suppression will be considered and utilised whenever practicable

Site Traffic

As noted previously there are three access points proposed during the construction phase. The access from the existing car park (off Grasmere Street) will be considered the main access point for deliveries of plant, materials, contractor parking and pedestrians. By utilising the car park as the main access point the potential to cause dust are reduced significantly as the existing hard surface can be easily maintained and cleaned similar to a traditional permanent car park arrangement. Vehicles leaving the site via the other access points have the potential to transport dust beyond the boundary through trackout. The wheel washing facility will be utilised where necessary, as well as procedures for effective cleaning and inspection of vehicles. The number of vehicles entering and leaving the site generally will be limited as far as possible to minimise dust emissions overall.

An appropriate speed limit of 5 miles per hour will be implemented on site to reduce dust re-suspension from road vehicles.

Vehicles carrying dusty materials are to be securely covered and information about vehicles entering and leaving the site, and their loads, will be recorded by the site manager.

Vehicles will avoid leaving engines idling and queuing of vehicles entering the site will be controlled to reduce emissions.

Site Activities

All site activities will be undertaken in accordance with this CEMP and trade specific Method Statements. Both will consider potential dust emissions where relevant.

Demolition, excavation and earthworks will be undertaken throughout the site in preparation for the construction of foundations and proceeding works. Significant earth moving works will not take place on dry or windy days if variations to the construction programme are possible. Where applicable, water is to be used as a dust suppressant during excavation and earth moving activities. Any exposed areas will be re-vegetated as the development progresses.

Stockpiles are to be kept for the shortest possible time and the height minimised. The predominant wind direction will be considered when sitting stockpiles to reduce the likelihood of effects upon sensitive receptors.

Daily checks for dust will be carried out by the site manager to prevent dust build up on site.

Plant, Tools and Machinery

The use of diesel and petrol powered generators will be minimised by using mains electricity as a power source for site machinery as far as possible.

The use of concrete batchers and crushers are regulated as processes under the Environmental Permitting Regulations (2016). As such, the Local Authority will be notified if a concrete batcher or crusher is to be used on site. A copy of the permit will be kept on site and the operations recorded in the site log-book.

Cutting, grinding and sawing activities will not be conducted on site where possible and prefabricated material will be imported. If cutting, grinding and sawing on site is necessary, all equipment will have either water suppressants or dust extraction systems installed.

All machinery for activities such as plastering, sanding and rendering are to be fitted with dust suppression and/or collection equipment.

It is necessary to continuously monitor for dust throughout the day. This will be in the form of visual inspections undertaken by the site manager. Records will be kept of any significant emissions or impacts and appropriate mitigation measures implemented as required.

Reference should be made to Table 1 for a summary of mitigation measures to be implemented on the site.

Table 1 Summary of Dust Mitigation Measures

Issue	Control Measure
Site Planning	• No bonfires • Plan site layout – machinery and dust causing activities will be located away from sensitive receptors • All site personnel to be fully trained • Trained and responsible manager on site during working times to record activities and carry out inspections
Construction and Demolition Traffic	• Vehicles to avoid leaving engines idling • Effective vehicle cleaning and specific fixed wheel washing on leaving site and damping down of haul routes • All loads entering and leaving site to be covered • Avoid site runoff of water or mud • On-road vehicles to comply to set emission standards • Minimise movement of construction traffic around site • Hard surfacing and effective cleaning of haul routes • A site speed limit of 5 miles per hour to be implemented • Minimise drop height when loading and unloading is taking place and dampen down if required
Earthworks	• Minimise dust generating activities • Use water as dust suppressant where applicable • Re-vegetate earthworks and exposed areas
Construction and Demolition Works	• Ensuring concrete batcher and crusher has permit to operate • On-site cutting, grinding and sawing activities to use water suppressant or appropriate dust extraction systems • Machinery for plastering, sanding or rendering to be fitted with dust suppression/collection equipment

Waste Management

Highall Developments is acutely aware of the effects that the disposal of waste can have on the environment and is dedicated to reducing wastage in all areas associated with construction. One of the key principles of our approach is to make operatives and visitors more aware and responsible for waste and waste management. Signage will be placed around the development and in the welfare areas to encourage recycling and use of the correct disposal methods for the various types of waste produced. Highall Developments appoints sub-contractors for works related to development that demonstrate responsibility and enforce this by supplying their own materials – this ownership results

in the minimising of unnecessary waste. These concepts will be incorporated within the sub-contract documentation, such that each sub-contractor considers the most environmentally friendly approach to their deliveries. A site specific Site Waste Management Plan is developed for all developments to organise the segregation of waste into separate containers so that recyclable items such as metals and timber can be recovered. The segregation area proposed is located as identified on the Site Strategy Plan provided in Appendix A.

The core waste management principals include:

- Implementation of a 'ready to be used' 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 feasible i.e re-use of excavated soil for landscaping.
- Segregation of waste at source where practical; and re-use and recycling of materials off-site where re-use on-site is not practical (e.g. through use of an off-site waste segregation facility and re-sale for direct re-use or reprocessing.

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 bundled storage areas.

As the new buildings become enclosed, rubbish will be collected in lightweight bins and skips that can be manoeuvred around the configuration of the building. The bins/skips will then be taken to the front of the building and dispensed into larger skips for transporting to the waste segregation area for removal off site.

Noise & Vibration Control

Management of noise pollution and vibration control will be given a high priority. Where the works are in close proximity of occupied buildings measures will be taken to ensure that acceptable levels are adhered to as well as statutory levels imposed by the Environmental Health Officers where necessary.

Should it be necessary to utilise a piled foundation solution, these works will be carried out in accordance with to BS-5228 the Code of Practice for Noise and Vibration on Construction Sites. In addition, the LPA shall be given prior written notification if piling works are to be undertaken. If deemed necessary, vibration monitoring will be used to ensure levels remain acceptable throughout the operation.

The impact of site noise will be minimised by the following:

- Works permitted only within the proposed working hours as noted at the start of this CEMP.
- No loud music/radios allowed on site.

- No deliveries outside of permitted site working hours.
- Drop height to be minimised when loading and unloading of materials.
- Where possible any potentially noisy equipment will be sited away from sensitive receptors.
- The use of acoustic screens will be provided if required.
- Only well maintained and regularly serviced equipment and machinery shall be used on the site during demolition and construction phases.
- If any generators or other machinery is left on site overnight (outside permitted hours of working) they will be switched off and keys removed, other than the generator serving the welfare facilities. The generator, if required, would be “Super silent” type as detailed in Appendix C of this report.

Lighting

It is not proposed to use lighting during the demolition and construction phases however, if lighting is required it shall be located so that it does not cause a nuisance to surrounding properties.

Site registration and community involvement.

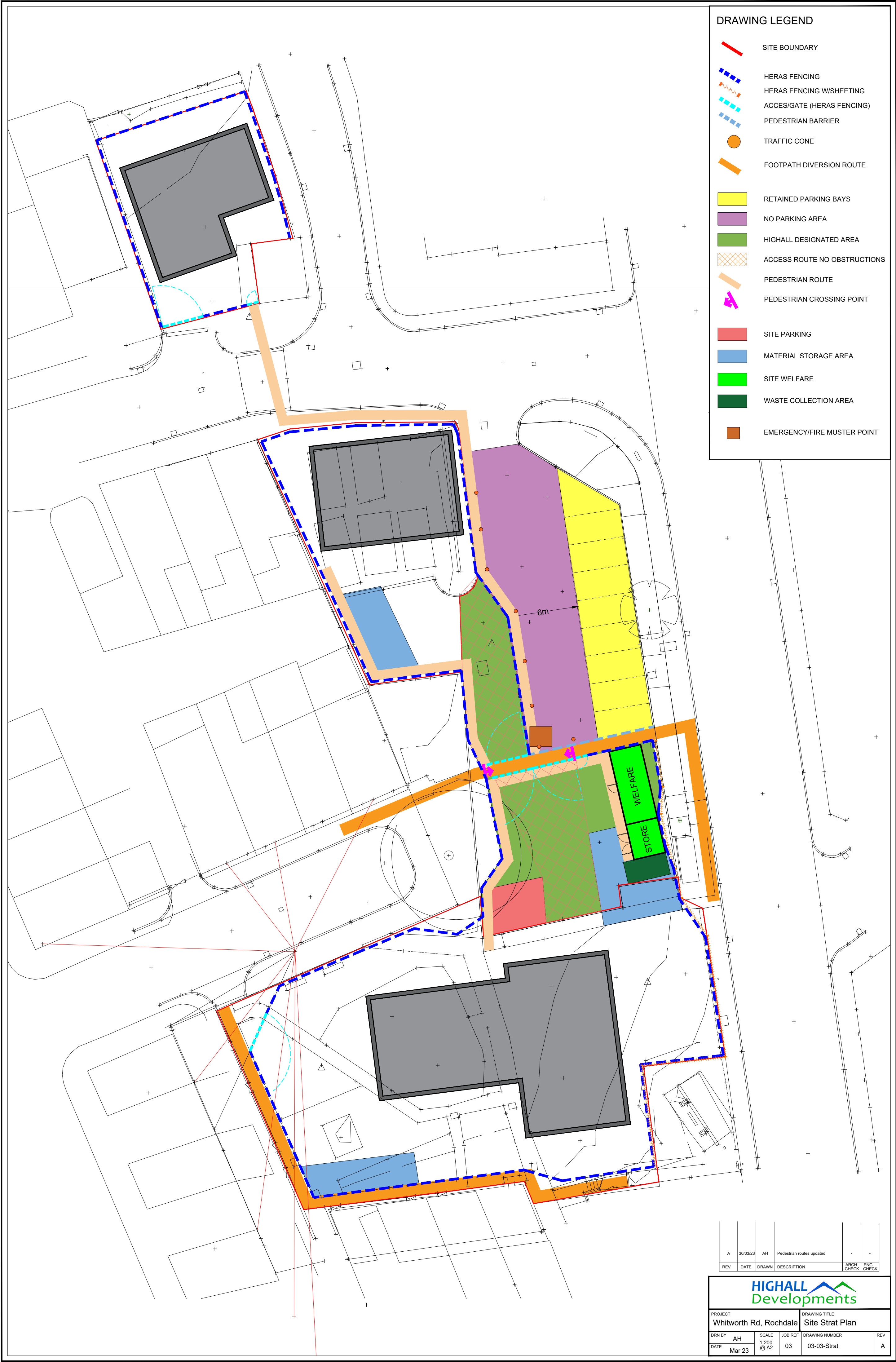
The site could be registered under one of several schemes improvement schemes available such as the “Considerate Contractors Scheme”. A leaflet drop to adjoining properties will be undertaken prior to commencement of works on site, which shall provide a contact name and telephone number should residents want to raise or discuss any issues. As the scheme progresses if any subsequent activities are proposed that may have the potential to cause or adversely affect neighbours a similar letter drop will be undertaken as and when necessary.

Conclusion

The contents of this Construction & Environmental Management Plan identify potential impacts the development of 14 dwellings could have on the surrounding environment and proposes measures for reduction and mitigation. It is concluded that, if the measures proposed are implemented, the site can be developed successfully without causing unacceptable impacts to the surrounding environment.

APPENDIX A

SITE WELFARE PLAN



DRAWING LEGEND	
	SITE BOUNDARY
	HERAS FENCING
	HERAS FENCING W/SHEETING
	ACCES/GATE (HERAS FENCING)
	PEDESTRIAN BARRIER
	TRAFFIC CONE
	FOOTPATH DIVERSION ROUTE
	RETAINED PARKING BAYS
	NO PARKING AREA
	HIGHALL DESIGNATED AREA
	ACCESS ROUTE NO OBSTRUCTIONS
	PEDESTRIAN ROUTE
	PEDESTRIAN CROSSING POINT
	SITE PARKING
	MATERIAL STORAGE AREA
	SITE WELFARE
	WASTE COLLECTION AREA
	EMERGENCY/FIRE MUSTER POINT

A	30/03/23	AH	Pedestrian routes updated	-	-
REV	DATE	DRAWN	DESCRIPTION	ARCH CHECK	ENG CHECK

PROJECT		DRAWING TITLE			
Whitworth Rd, Rochdale		Site Strat Plan			
DRN BY	AH	SCALE	JOB REF	DRAWING NUMBER	REV
DATE	Mar 23	1:200 @ A2	03	03-03-Strat	A

APPENDIX B

MECHANICAL SWEEPING & WHEEL WASHING EQUIPMENT

Specification Sheet

VT650 SWEEPER

Series VT650

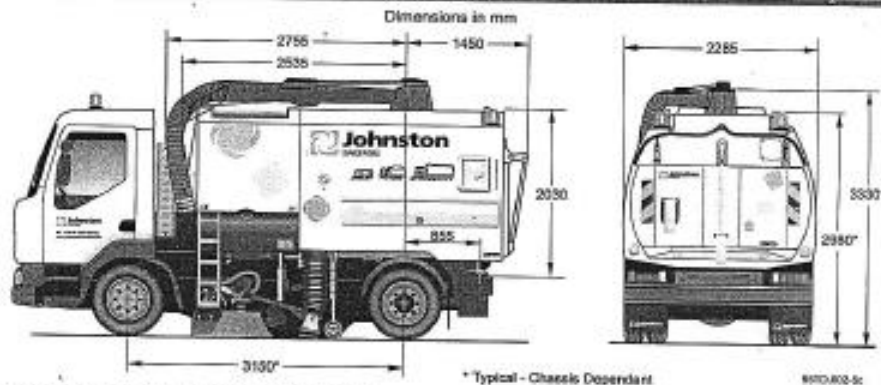
Subject Technical Information and Data

Sheet 1 of 1

Issue Number: 13-06

Date: 09.03.06.

Reference: ED C/22286



Data and Performance Information

Capacities		Sweeping Equipment	
Hopper voided volume	6.5m³ nominal	Channel brush (CB)	Ø 500mm (Ø 650-710 Options)
Payload voided volume	5.7m³ nominal	Wide sweep brush (WSB)	Ø 408mm
Payload capacity	8 Tonnes (chassis dependant)	CB life expectancy	80 accumulated working hours (nom)
Fuel tank	100 litres	WSB life expectancy	150 accumulated working hours (nom)
Water tank	1300 litres	Nozzle trunking diameter	Ø 250mm
Hydraulic system	75 litres	Nozzle width	750mm
Engine Data		General Data	
Model	Iveco NAS MNA	Chassis requirement	13-15 Tonnes
Cubic capacity	4.5 litres	Wheelbase	3100mm nominal
Gross rated power	80kW @ 2300 rpm	Dump height	1000mm (fixed) chassis dependent
Maximum torque	320Nm @ 1400 rpm	Dump angle	64° nominal
Legislation compliance	NRMM Tier 2 EC directive 2008/EC	Door opening angle	125° nominal
Operational rpm	Variable between 1200-2000 rpm	Filter mesh area	1.05m²
Bump capacity	10 litres	Dust spray pump output	Up to 350litre
Ambient temperature	50°C worldwide approval	Dust spray water pressure	3.5 bar
Cold start capability	-15°C	Hydraulic suction filtration	120 micron
		Hydraulic return filtration	25 micron
		Hydraulic pump displacement	16.8 cc/rev. max output 32 litres
		Sweeping speeds	2-15 kph (chassis dependent)

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Due to continuous product development Johnston Sweepers reserves the right to alter specifications without prior notice.





SPECIFICATION

Make	MultiSweep
Model	425
Product Category	Road Sweepers
Weight	480kg
Water Tank Capacity	200L
Sweeping Width	2m



APPENDIX C

WELFARE GENERATOR

MATHER+STUART
GENERATORS LTD

01257 427398

Guaranteed to provide power what ever the location!!



Over 25 years experience specialising solely in temporary power generation.

FLEET

- Size ranging from 10 KVA to 1250 KVA
- Over 750 Super Silenced Generators Available
- Easy operation & clear safety instructions supplied
- Earth leakage protection
- Anti-vandal "Voltsafe" Super Silenced secure generators for problem sites
- Quick release fuel valve connections for bulk bunded fuel tanks
- Modern Fuel Efficient Generators

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