

Client: Bagnall Heights Limited
Document: Construction & Environmental Management Plan
Reference: CTRMP/Sub-4/02
Planning Ref: SMD/2023/0496

Construction and Environmental Management Plan

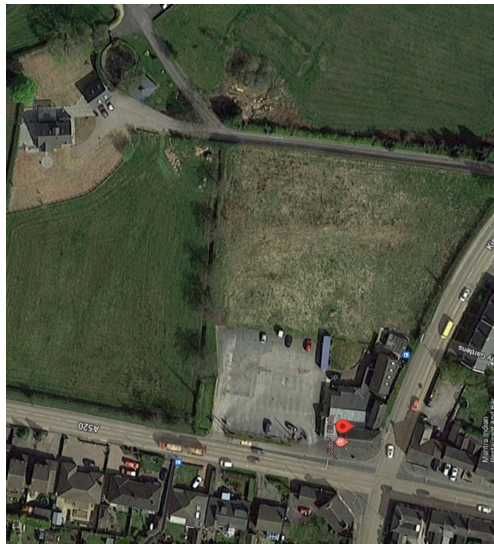
Construction of 9 extra care units/dwellings (C2), communal lounge/office building and associated works.

at:

The former bowling green to the rear of Sub-4 Health Leek Road Cellarhead
Staffordshire ST9 0JQ

Under

Staffordshire Moorlands District Council Planning Reference SMD/2023/0496



Prepared by: Tony Williams

Position: Client Health & Safety Advisor

Issue Date: Draft: 06.05.2024.

Introduction

This provisional construction and environmental management plan has been prepared by A&H Safety Consultants Limited on behalf of the projects client Bagnall Heights Limited and is to be submitted to allow for the discharge of condition 8 of the Staffordshire Moorlands Decision Notice SMD/2023/0496.

To be read in conjunction with the Project Layout Plan within appendices

1. Project Duration, Working Hours & Contact

- The development will commence on the discharge of all pre commencement conditions.
- The construction period is projected to last approximately 26 weeks.
- Working hours are to be restricted to 0800 to 1800 hours on Monday to Friday & 0800 to 1300 hours on Saturday, with no work at any other time including Sundays and Public Holidays.
- Client Site Contact: Mr. Phil Vincent: Tel: 01782 541222
- In agreement with the Council Planning Authority, quieter activities (Internal fit out works etc) that do not cause disturbance to neighbouring occupiers can take place outside of these times.

2. Construction Site Preparation Works

The construction site will be inspected by the ecologist prior to construction works commencing. At the satisfaction of the ecologist and at their instruction, it will then be prepared by the stripping of the existing grasses and topsoil's, these materials will then be stored within the site for future reuse in the final landscaping works. The construction zone will then be prepared in compliance with standard construction industry best practice using imported clean materials. On the completion of the project, the approved landscaped areas will be restored using the previously stored topsoil materials.

Provisional Construction Traffic Management Plan Ref Sections 4-11

During the site preparation and construction phases of the project, materials, equipment and personnel will require movement to and from the site. The construction works will be phased to allow for the siting of the welfare facilities and associated laydown and parking arrangements.

The Project Traffic Management Plan describes how these movements will be managed. The traffic numbers quoted within the plan are based upon the experience and knowledge of previous developments within the local area.

3. Primary Site Entrance Leek Road

The existing “IN” and “OUT” entrances to the Sub-4 Car Park located off Leek Road will be used in compliance with the relevant planning conditions and current traffic management system. The entrances and existing car parking arrangements will be managed to allow the segregation of Sub-4 Traffic and the project traffic. All project traffic will use the IN entrance only and will be marshalled into and off site.

The existing fence lines/hedges will remain to provide site security to the site. The project area will be robustly secured from unauthorised access by the erection of Heras Security Fencing with debris netting attached to reduce any dust migration to Sub-4 and other neighbouring properties and road users. Our appointed contractor will ensure the upkeep of the entrances, fencing and any immediate areas affected by the works. They will ensure that all vehicles accessing and egressing site are of the correct dimensions to safely access/egress the public highway.

Our appointed principal contractor will afford further risk mitigation controls by the positioning of warning signage in compliance with all regulatory requirements and by having in place the required management controls for all project vehicle movements.

Note: GS6 Avoiding danger from overhead power lines controls will be put in place at the existing Leek Road “IN Entrance” for the duration of the project.

4. Delivery Management and Routing

The onsite Construction Manager will have full responsibility for the coordination and management of deliveries to and from site, all project traffic to use the “In” entrance for both access and exiting the site. The manager will ensure the safety of all on site personnel, the occupants of Sub-4 Business, the neighbouring properties, public road traffic users and the public. The appointed manager’s role will also include advising delivery drivers of the most appropriate routes to and from site, the most suitable times of deliveries and of any local restrictions on vehicle heights and widths and proposed events etc. Vehicle movements between school hours will be so far as practicably kept to a minimum. All traffic will comply with local rules and traffic conditions.

5. Deliveries to site

Deliveries of plant, materials and equipment will be made by a combination of articulated vehicles and smaller rigid vehicles. To assist with deliveries an on-site a Telescopic handler will be used as well as delivery vehicles having a Hiab Crane attachment.

Table 1 & 2 show the estimated vehicle movements on site. These values are based upon the information from previous similar developments.

Where practicable all materials, plant and equipment will be sourced from local suppliers to minimise the impact upon the highway network.

The hours of deliveries to the site will be restricted to the site operational hours. So far as is practicable all deliveries will be outside of peak traffic/pedestrian hours.

Table 1 Delivery of Heavy machinery

Description	Vehicle Type	Estimated Number of vehicles
Temporary offices, welfare	Trailer	3 – remain on site
Generators	Trailer	1- Remain on site
Excavator	Trailer	2- Remain on site- during groundworks phase
Dumper	Trailer	1- During groundworks phase
Teleporter	Self-Propelled	1- Remain on site for the construction phase
Cranage Concrete Pumps	Self-Propelled	4 - at key stages of contract during the construction phase

Table 2 Delivery of materials and equipment to and from site

Waste from site preparation	10 tonne max load	20
General Waste from site	10 tonne max load	2 per week
Aggregates for construction work	10 tonne max load	40 in total
Concrete deliveries	10 Tonne max Load	25 in total
Waste containers and materials during construction	8 tonne max load	90
Delivery vehicles	10 tonne max	Max of 3 per week during specific periods
Site personnel traffic- Site preparation & construction	Vans <2Tonne Cars	5 per day 3 per day
Site personnel traffic- Finishing	Vans <2Tonnes & Cars	10 per day

6. Daily Traffic Movements

During the construction phase, it is anticipated that the workforce will generally be between 5-20 (employees and contractors). To reduce the number of trade vehicles, vehicle sharing will be encouraged, and the appointed contractor will ensure that only essential vehicles will park on site.

7. Vehicle parking

All project vehicles will park in the projects designated-on site car park.

Site traffic will be kept to a minimum and the appointed contractor will have in place the required controls to reduce vehicle numbers attending site.

8. Site vehicle manoeuvring

The site will be planned to allow for a turning circle or suitable room is available to allow for the turning /reversing of vehicles. Reversing will be kept to a minimum, all vehicles entering and leaving site will be managed by a suitably trained banksman.

9. Offsite traffic management

Temporary "Construction site Access warning signage will be displayed at the existing Leek Road entrance gates. All signage will be in accordance with Chapter 8 Traffic Signs manual, the Construction Design and Management Regulations 2015 and will be provided and maintained for the duration of the construction phase on all approaches to the site.

Suitable warning signs will be located in advance of the site entrance at the approach from all directions on Leek Road

All project vehicles who park on site and will do so in compliance with site rules.

No Pavement/Verge Parking or parking on the surrounding public highways.

10. Public Road Cleanliness

The site will be hard cored to reduce the transfer of dirt and debris, additionally a temporary banded jet wash facility will be positioned at the Leek Road site entrance/exit and if required any vehicle leaving the project site will be cleaned.

In the event of the public highway being affected by debris from the site, the appointed principal contractor will enter into an agreement with a local supplier to ensure the affected area is cleaned.

11. Site Security

The existing security fencing will remain with additional Heras fencing, with debris netting attached. Temporary double opening security gates with a pedestrian gate will be constructed within the site road.

Warning Notices and the appointed Principals Contractors Company information will be displayed at the site entrance.

The following information will be displayed at the site entrance and will be made available to members of the public.

- Principal Contractors Company Contact Details
- The Principal Contractors Site Managers Contact Details
- Design Team Contact Details

In the event of any public complaints, the appointed contractor will keep a record of all such complaints and respond to them as soon as possible. The log of complaints and action taken will be brought to the attention of the Project Team and made available to the local authority on request.

12. Tree Protection & Ecology Protection

All environmental and ecological protective measures will be in place as determined by the requirements of the following reports.

- Initial works during the period March 1st – August 31st – all works supervised by the appointed ecologist.
- Apex Ecology Preliminary Ecological Appraisal NW/230920 – 28.09.2023- Section 4 Recommendations and the January 2024 Report MR/240113, addendum to the report detailing further mitigation to reduce the impact upon the Greater Crested Newt colonies.
- Hamps Valley Limited BS 5837:2012 Tree Survey Report & Arboricultural Impact Assessment (AIA) – Issued 07.09.2023.
- All the relevant planning conditions imposed within the Planning Notice.

13. Environmental Strategy - The Control of Dust and Emissions from Site Preparation and Construction

Health and Safety at Work Act 1974

The provisions of the Health and Safety at Work Act 1974 apply at all times on demolition and construction sites. The Health and Safety Executive (HSE) is the enforcing authority. Research is continuing into the health effects of airborne pollutants and exposure to PM10, though evidence is emerging that smaller particle within this fraction - below PM2.5 - may be the most harmful. As a first step to protect a worker's health and safety, emissions of airborne pollutants should always be minimized. However, where this cannot be achieved personal protective equipment should be provided and used. Proper planning should be undertaken, and appropriate mitigation decided for demolition and construction projects that will potentially generate large quantities of dust or emissions.

The Building Act 1984

This Act and subsequent Building Regulations 2000 aim to ensure the safety of those within and close to a building during works. They are the main mechanism for a LPA to control the impact of demolition. Under the regulations the LPA must be informed of any proposed demolition at least six weeks before work is due to begin. It will then grant a notice for demolition prior to work commencing. Section 82(J) of the Building Act 1984 can be used by the LPA to place conditions on the demolition notice to ensure that effective dust management options are undertaken. To facilitate a smooth application process, developers should consider and suggest to the LPA management techniques for dust control during demolition prior to their application.

Environmental Protection Act 1990

Under Part III of the Environmental Protection Act (EPA) 1990, emission of dust, fumes and other effluvia from construction sites can be identified as a statutory nuisance if prejudicial to health or a nuisance. Control of a statutory nuisance is contained within section 80 and a local authority is under a mandatory duty to serve an abatement notice on the person responsible for the nuisance (or the owner or occupier of the premises on which the statutory nuisance is present) if it is satisfied that a statutory nuisance exists, or is likely to occur or recur.

Further:

The Conservation of Habitats and Species Regulations 2017

Wildlife and Countryside Act 1981 (as amended)

The Hazardous Waste (England and Wales) Regulations 2005

The Building Regulations 2000

14. Waste Management

All waste will be segregated and disposed of in the respective waste streams to allow for recycling or disposal at a Licensed Off-site facility. All waste will be stored within hardscaped areas, all liquid wastes will be stored within bunded IBC, s or equivalent.

Ref: The Hazardous Waste (England and Wales) Regulations 2005

15. Local Air Pollution Prevention and Control (LAPPC)

All works will ensure that the recommendations detailed within section 7 of the submitted an Air Quality Assessment produced by SLR (Ref: 402.065154.00001).

By following this Best Practice Guidance, the appointed contractor will identify good practice methods for demolition, site clearance and construction activities. Compliance with this document does not necessarily offer exemptions from prosecution under any of the legislation impacting upon demolition and construction, though it should be recognised that using Best Practicable Means (BPM) could be used as a defence from prosecution under the S.80 of the Environmental Protection Act 1990.

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16. Asbestos

No Asbestos Containing Materials were located or are presumed within the project location.

Not: If during the course of the groundworks our appointed contractor locates suspected asbestos materials, they will ensure that the materials properties are identified by an accredited laboratory and then if the materials are confirmed asbestos, they will make the necessary arrangements to have the materials removed in compliance with the Control of Asbestos Regulations 2012.

17. General Dust Controls – Protection of Neighbours, General public and the Environment

General precautions that will be taken to minimize dust generated on the site will include, Water Suppression during all earthworks activities, Site roads hard cored and wetted during dry/windy periods, the use of pre formed materials, minimise on site cutting, Use of On Tool Extraction, fixing of debris netting to all site boundaries, the covering waste skips, all vehicles carrying waste will be sheeted, materials stored undercover, good on-site housekeeping.

The site roads will initially be hardcore/crushed material construction and can be sprayed to minimize dust. Once surface bound, they will be swept on a regular basis, the Site Manager will decide the necessary frequency based on the conditions on site. This will allow delivery trucks to be kept relatively clean and significantly reduce the likelihood of dust on roads outside the site.

Cleaning of surfaced site roads will be carried out weekly by a contracted road sweeper, however frequency will increase or decrease as the manager feels necessary. This would include site entrances and the immediate highway. It is important to recognise that this needs to be monitored consistently throughout the contract, in light of site operations and weather conditions and not just in the early stages.

The Site Manager must monitor dust production at regular intervals during the day and record their findings, records to be kept on file in the site office. These records must be made available to the EHO upon request.

Materials will be stored on site. These will include reclaimed materials, and this will be closely monitored to reduce the potential for airborne dust. All materials are to be covered.

All waste materials to be covered and secured.

Dust suppression can be implemented on small plant when operations are being carried out adjacent to existing properties. Cutting and grinding on site should be kept to a minimum but where necessary; it should be carried out using equipment fitted with silencers and water suppression devices.

We will minimise creation of dust by Elimination – Substitution – Isolation – Control measures. This will be done by shutting plant down when not in use to eliminate the problem. If excessive dust was still a problem, then the problem should be isolated by moving plant to another area of site so as to isolate the problem away from neighbours. If the plant cannot be moved anywhere else, we will then control by erecting screens or enclosures.

In the event of a complaint however received, the Site Manager will be responsible for following the complaint through to resolution and initiating any necessary enforcement or corrective action. Remedial action will then be taken to reduce levels and the Site Manager will check and verify that the corrective action has been successful in reducing dust production.

Control measures to control dust for the project also covers other emissions to air, including fumes and smoke. Prior to starting any works which would create excessive dust, site management will notify neighbours as to what activities we plan to do and for how long.

Ref: BRE Guidance Control of dust from construction and demolition activities

18. Fire Safety

There are Public Fire Hydrants located immediately outside of site on the Leek and Cellarhead Road junction. There will be NO waste burnt on site. A specific on & off-site Fire Risk assessment will be compiled for the undertaking of all construction related activities.

19. Vibration

Prior to starting any works which would create excessive vibration, site management will notify neighbours as to what we plan to do and for how long. Generally, there shouldn't be any operations that create excessive vibration. However, In the event of a complaint however received, the Site Manager will be responsible for following the complaint through to resolution and initiating any necessary corrective action. Prior to starting any works which may affect surrounding properties, site management will carry out an existing condition survey of adjacent buildings externally and boundary structures to ensure the existing condition is maintained. So far as is reasonably practicable all crushers and breakers will be sited upon crushed or soft materials to reduce the effects of vibration.

20. Noise Control

We will always employ the Best Practicable Means.

Generators will be sufficiently attenuated so that any noise generated shall be inaudible inside any nearby noise sensitive premise.

The other method we use to control noise from construction sites is to require that all contractors use the 'best practical means' to minimise noise from their activities. This is a very broad (and complicated) area and can include matters ranging from the prohibition of the use of radios on site to the proper maintenance of plant and equipment. It can also include matters such as the choice of appropriate plant for a particular task or putting up noise barriers or screens.

Poorly maintained plant and equipment can give rise to excessive noise and the failure to use the built-in noise control shielding on plant can cause problems. We encourage the use of mains powered electrical equipment (rather than using generators) and hydraulic breaking or bursting techniques are preferable to impact breaking methods for demolition.

The choice of equipment for a particular task is important in noise reduction. For example, bored piling is usually a lot less disturbing than hammered piling. We therefore insist on the use of bored piles whenever possible. However, sometimes it is necessary to use hammered piling techniques for engineering reasons.

Simple Purpose-Built Screens and Enclosures

Materials such as plywood or chipboard panels can be lined with sound-absorbing material such as mineral wool to create noise containing screens or enclosures. The length of the barrier should be greater than its height. If possible, the noise source should not be visible, and the barrier located as close as possible to either the source or the receiver. Simple portable screens, located very close together, can effectively reduce the effects of noisy work in small areas, including jack hammering or plate compaction.

Screening may be essential when any noisy work is proposed outside of standard construction hours.

Concrete Pouring

Concrete pouring starting before 0800am is not normally permitted unless there are good road control reasons. The noise from concrete pumps is likely to cause complaints from nearby residential sites when the neighbourhood is otherwise very quiet, even in the central city. It pays to place concrete orders early so that suppliers can offer a choice of delivery times after 7.30am. To avoid the need to extend construction hours, architects and engineers may be able to incorporate reduced slab sizes in the design. The use of accelerants and heaters should also be considered to reduce setting times. Concrete pumping should be located away from sensitive boundaries.

Breaking of Concrete

Use of traditional rock breakers attached to excavators is one of the most common causes of noise complaints, especially if it takes place on or near to a common, or shared wall of an occupied building. Where possible use equipment that breaks concrete by crushing it rather than drilling through it. Always consult the occupants of adjoining properties before work starts. Hydraulic and chemical expansion methods are less noisy methods worth considering. Even explosive methods can be tailor-made for the job and may be appropriate.

Plant and Machinery

The rating level (LAeq, T) from any plant and equipment associated with the development, when operating simultaneously, shall not exceed the background noise level (LA90, T) at any time when measured at the nearest noise sensitive premises at the quietest time that the equipment would be operating/in use. Noise measurements and assessments will be compliant with BS 4142:2014 "Rating industrial noise affecting mixed residential and industrial areas".

Do not leave engines running when not in use, noisy mufflers on plant and noisy site radios. Make sure that unnecessary metallic impact noise is avoided from dropping scaffolding poles, placement of roading plates, moving metal fencing and the clanking of chains on crane hoists. Ensure that machines are maintained regularly – they will be quieter. Simple maintenance can reduce noise levels by as much as 50 per cent. Check for noise problems if you notice workers having to shout at arms-length to converse. This indicates that the noise level may be above 90 dBA at this location.

Move static plant and equipment as far as possible from sensitive boundaries, as work allows. A distance of four times further away lowers the noise by 12 dBA. A reduction of 10 dBA will sound half as loud. In some cases, quiet plant and machines are available which are specifically designed to produce less noise. Examples are muffled breakers (the noise of a typical silenced breaker can be reduced by 16 dBA if a purpose-made muffler is fitted) and silenced diesel generators and compressors (some units are up to 15 dBA quieter). Generally, electrically powered equipment such as chain saws and cranes are noticeably quieter than diesel-powered equipment and hydraulically powered equipment is quieter than pneumatic power.

Cutting metal using gas cutters is far less noisy than using grinding methods to dismantle metal structures. When replacing exhaust and intake mufflers, ask for quieter options which are often available. Similarly, specified plant and equipment such as excavators can also operate at very different noise levels. Keep machinery covers and panels closed and well-fitted. Bolts and fasteners should be done up tightly to avoid rattles. Avoid equipment that is either over or under powered.

Saw Cutting of Pavers and Pavement Slabs

A cutting station should be established with the saw enclosed in an acoustic enclosure. A simple screen is unlikely to be effective in residential streets due to reflected noise effects. A water supply should always be made available and the saw blade changed regularly to avoid an annoying high pitched “whining” noise from developing. For any saw cutting choose a saw blade with the greatest number of teeth and of the smallest width. Choose a blade with gullets as small as possible. Choose a blade with built in vibration dampening slots.

Pilling Works to include Auger/Sheet Piling/hammer Piling

Due to the sensitivity of the area and the recommendations within the planning decision notice we will use the Silent Piling methodology. Our contractor will be one who has worked on equally sensitive projects and has the requisite skills knowledge and experience. **Pile driving shall not take place outside 09:00 to 16:00 hours Mondays to Fridays, nor at any time on Saturdays, Sundays or Bank Holidays;**

General comment we will choose quieter types such as augured or vibratory piling as a first option. Unless it is shown that there are good engineering reasons to confirm that the ground conditions are not suitable, the choice of drop hammer rigs should be a last resort. Where drop hammer piling is shown to be the only suitable type, other noise reducing techniques should be adopted. These options include reducing the noise from the contact of the hammer with the pile helmet by using purpose-made dollies or blocks of plywood. The design of the equipment and the pile helmet should ensure that damping can be utilised in this way. It is also possible to add shrouds to help contain noise at the hammer or enclose the entire pile and hammer. Planned breaks may be necessary to fit in with the business or activities happening in neighbouring properties.

Audible Reversing Signals

These signals are very penetrating by design and can be turned off, or the tone changed in some circumstances, but talk with the company safety advisor first to ensure that site safety requirements are maintained.

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21. Conclusion

It is considered that with the controls recommended within the Construction and Environmental Management Plan and the initial site layout traffic management controls, there will be a considerable reduction in risk to all persons and the surrounding environment affected by the works.

Contractually the clients appointed principal contractor will ensure that if circumstances change, which result in changes to this construction and environmental management plan, they will first discuss the proposed changes with the Client and the Design Team to ensure the necessary permissions are granted to allow for those changes to take place.

Name: Tony Williams



Position: Client Health and Safety Advisor

Issue Date: 06.05.2024

Ref Appendix- Proposed Site Plan