



ALFA SITE SERVICES LTD
GROUNDWORK & CIVIL ENGINEERS

48 Outgate Farm, Eland, Scunthorpe DN17 4JD



SURFACE WATER MANAGEMENT METHOD STATEMENT

Site Location:	Land off Penistone Road, Fenay Bridge, Huddersfield
Site Management:	A Lockwood
Contract Manager:	R Harrison
Date Prepared:	18 March 2024
Identified Areas of Risk to Environment	• Contamination of existing watercourse (Fenay Beck) • Contamination of surface water drainage on Penistone Road • Flood risk to Penistone Road
Environmental Monitoring:	Mr A Brown / A Lockwood / R Harrison
Approved by Newitz Homes:	

INTRODUCTION

The works will consist of the site stripping of the proposed Newitt Homes development at Fenay Bridge, Huddersfield. The stripping of the site has the potential for surface water to breach the site boundaries resulting in environmental risk to locations down hill of the site. Significant receptors are present in the form of Penistone Road existing top water drainage system, and to a lesser degree Fenay Beck water course which is situated within 500m of the site.



GENERAL AREA

- Fenay Bridge is a small village situated around Fenay Beck, 2.5 miles South East of Huddersfield Town Centre, the area is a mix of residential housing and rural agricultural land.
- Fenay Bridge is surrounded by Lepton Village to the North, Highbuton / Kirkburton to the east, Almondbury to the south and Waterloo to the west.
- Penistone Road is a main arterial feed from the northern Sheffield, Barnsley areas into Huddersfield. It is also the main access route used by a number of the buses serving King James High School each morning and afternoon. Penistone Road can be expected to be busy at peak times with a steady flow of vehicles throughout the day.

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TRAINING AND CERTIFICATION

All operatives working on site must have a training pack completed, the training pack will be located within a site operative folder, each pack will contain copies of the individuals training records. On arrival on site at the induction stage copies of the training certification for the operative needs to be copied or printed off. The information from the training records needs to be logged on page 4 of this document, the following are the basic training requirements.

ALL STAFF TRAINING

- CSCS Competency Card
- Face Fit Certificate
- Manual Handling
- Banksman / Traffic Marshal

SUPERVISOR / MANAGER TRAINING

- SMSTS / SSSTS
- Temporary Works Coordinator
- First Aid

PLANT OPERATORS

- (All operators to complete familiarisation training forms)

DUMPER

- NPORS Dumper N204 or CPCS A09 Forward Tipping Dumper
- Operators with NPORS need to undertake module NI39 for models of IT or below
- NPORS Rear Tipping Dump Truck (N205)

EXCAVATOR

- NPORS 360 Excavator N202 or CPCS 360 Excavator above 10T A59
- Lifting Operations (NPORS NR100) (CPCS A59c)
- Quick Hitch

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PLANT AND LIFTING EQUIPMENT

PLANT GENERAL INFORMATION

- All plant brought onto sites under the control of Alfa Site Services must first have a conformity inspection undertaken, this must be undertaken by the person who is to operate the item of plant. Once the form has been completed and the item of plant is deemed acceptable and suitable for works on site, a photograph of the item of plant must be appended to the back of the form and passed to the site manager for inclusion in the site files. All plant must be recorded on form (MPC1).
- All plant on site intended to be used for lifting operations on sites must carry a current thorough examination test certificate, copies must be available on site, stored / displayed or filed in the site office. The certificate must be within a twelve month test period.
- Where excavators are used for lifting operations, the following points must all be sufficiently completed / addressed. The plant must be within twelve months of test. The lifting accessories must be within six months of test. The excavator must be fitted with an audible SWL indicator alarm. The plant operator must be trained to undertake lifting operations with an excavator. The lifting operation must be planned and documented on the non-crane lifting plan document (NCLP1).
- All Excavators shall be fitted with a tested and certified sling attachment point and be clearly marked with the maximum safe working load, where required.
- All Excavators shall have a table of rated handling capacities in the cab. Quick Hitch Certification shall be recorded on the same certificate.
- All Excavators used for Lifting Operations with weights in excess of 1tonne shall be fitted with check valves to the main boom and an audible alarm in the cab. Duty charts / weight ratio graphs will be stored in the cab within the machine.
- The Excavator Lift Plan must be completed prior to any lifts taking place.
- Lifting operations must only be undertaken within a segregated demarcated area on site. Ground conditions must be level and suitable for lifting operations to be undertaken. In instances where soft / manmade ground is present, pressure testing is necessary to ensure the ground does not need remedial works (which will involve excavation and provision of compacted stone) to undertake the works.
- All operatives operating plant on site must first undertake familiarisation training for the item of plant being operated, this is to be documented on the plant familiarisation training form (POFR1)
- Plant must only be operated within its capabilities, the information for the plants working gradients are available within the site plant assessment files held within the site office, these will be provided to all plant operatives during the induction stage and should be used as toolbox talk refreshers at regular intervals throughout the duration of the project.
- Details of all equipment on site must be recorded in the plant and equipment registers held on site, this includes all sub-contractor's equipment.
- All operators are required to produce their training certification records prior to commencing operations on site.

PERSONNEL WITH NO CERTIFICATED RECORD OF TRAINING WILL NOT BE PERMITTED TO USE ANY ITEMS OF PLANT AND EQUIPMENT ON SITE.

PLANT WHICH HAS NOT BEEN GIVEN A PREUSE DOCUMENTED INSPECTION WILL NOT BE PERMITTED ON SITE.

OPERATIVES WHO HAVE NOT COMPLETED FAMILIARISATION TRAINING FOR THE ITEM OF PLANT ARE NOT PERMITTED TO OPERATE THE ITEM OF PLANT.

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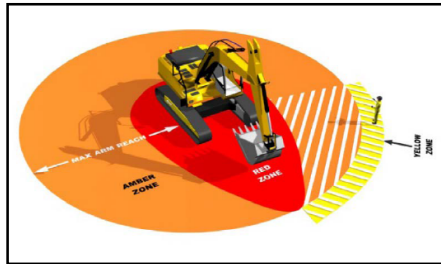
EXCAVATORS

WORKING WITH AN EXCAVATOR

- All the excavations and lifting operations will be carried out using 360-degree excavators.
- All operators are trained by a recognized accredited training association.
- The use of a mobile phone (including bluetooth devices) music radios, CD players, iPods both personal and factory fitted and two way radio is strictly prohibited when operating any item of plant including excavators.
- All excavators are fitted with non-return valves and audible alarm systems in the cab (safe load indicators).
- When the machine is being operated there is clearance of at least 600mm for "tail swing".
- Plant awareness boards "Thumbs Up" will be located at the area where excavators are operating. All excavators will have "Thumbs Up" signage attached.
- All machines will be fitted with adequate visual aids.
- If it is necessary for anyone to go into the machine's working radius whilst it is working, then the machine operator must be made aware and acknowledge that it is safe to approach the machine.
- No person should be permitted at any time to be within the machines working radius without obtaining permission from the operator.
- No excavator bucket or load should be slewed directly over personnel; vehicles should be loaded over the side or rear and the material should not be dropped from an unnecessary height.
- The manufacturer's recommended bucket size must not be exceeded. It may be possible to lift the load with the bucket in close to the machine at ground level but as the load radius and elevation increases, the lifting capacity of the machine decreases.
- The excavator must never be permitted to travel in a confined area, or around people without a banksman to guide the driver, with the excavator attachment close in to the machine with the bucket just clear of the ground.
- Dangerous overhangs must not be created on a high worksite; the tracks of the machine should be positioned at 90° to the workforce to enable quick withdrawal, if necessary.
- In excavating, the type of soil must be taken into account in determining a safe position for the machine.
- A workface below the level of a machine must never be undercut so as to affect the stability of the machine.
- If operating on a gradient cannot be avoided, it must be ensured that the working cycle is slowed down, that the bucket is not extended too far in the downhill direction and that travel is undertaken with extreme caution.
- Precautions must be taken in accordance with the Working at Height Regulations 2005 these are to include - safety barriers fitted on the engine cowling to prevent persons falling from the cowling when fitting or removing safety screens or checking fuel levels, provisions must also be in place to prevent plant from falling into any excavation. This will mean the fixing of continuous rigid barriers to mark any temporary footway and to protect pedestrians from traffic, excavations and plant. Handrails should be fixed at between 1m and 1.2m above ground level. Traffic barriers, used to indicate the works and to segregate traffic from the works, should normally be of an innocuous type, designed so as not to cause a further hazard if hit by a moving vehicle. They must be of a conspicuous colour and kept clean. Vehicle stops must also be provided to prevent overrunning by plant.
- When operating an excavator fitted with 180 degree facilities i.e. mini excavator or backhoe loader on the main boom, the operator must not operate the machine with the front screen open.

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EXCAVATOR SAFE ZONES



- Yellow Zone**
 All personnel involved with the plant operation must maintain visual contact with the excavator operator.
- Amber Zone**
 Entry prohibited until positive visual contact is made with the plant operator, the slew arm / hydraulics grounded, and the machine is immobilised using the safety lever.
- Red Zone**
 Entry prohibited unless the machine is completely isolated with the slew arm / attachment/ bucket grounded, the machine immobilised using the safety lever and the engine switched off.

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DUMPERS

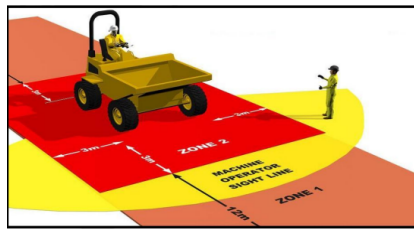
- The following rules must be followed at all times when operating dump trucks on site:
 - Dumpers must be checked for suitability prior to first use on site;
 - Operators must undertake familiarisation training which must be documented;
 - No inexperienced or inadequately trained drivers to operate the plant on site;
 - Dumpers must not under any circumstances be driven up stock piles;
 - Dump trucks must never be operated up and down or across gradients which are beyond their capability;
 - No passengers on dump trucks which have not been designed for passenger transport;
 - Never operate with poor or restricted vision;
 - All dumpers must be supplied with the green beacon seat belt warning and must have an immobiliser to prevent operation unless the seatbelt is connected.
- The management of the operation will be undertaken in the following manner:
 - Only trained, competent people are permitted to operate the dumper on site;
 - Ensure a daily pre use check is undertaken and documented in the plant register;
 - Ensure the tyre pressures are checked daily as part of the inspection;
 - Ensure all operators are aware of the site gradients and have undertaken the latest toolbox talk with regards to the site topography;
 - Providing wheel stops at a sufficient distance from the edges of excavations, pits, and access ramps;
 - Ensuring a safe system of work is developed, followed and monitored including the seat belt warning light system;
 - Ensuring that the dumpers and dump trucks can operate safely on the gradients which exist or will exist on site;
 - Driving at suitable speeds for the ground conditions and vehicle capabilities;
 - Instructing drivers to manoeuvre carefully on gradients;
 - Instructing drivers not to operate any controls unless they are sat on the driver's seat;
 - Reversing only when there is adequate rear-view visibility or under the directions of a banksman;
 - Not carrying passengers unless specific seating has been provided in accordance with the manufacturers' recommendations;
 - Ensuring loads which might cause injury if they move or come off, are securely fixed;
 - Ensuring loads do not adversely restrict vision;
 - Only loading when the dumper or dump truck is level and the handbrake engaged, and the operative has dismounted and a safe distance from the dumper;
 - Ensuring the engine is turned off when the driver has dismounted from the vehicle;
 - Only tipping loads when the vehicle is stopped with the parking brake on and out of gear;
 - Ensuring the skip is in its horizontal 'rest' position at all times except when tipping;
 - Ensuring site roads and dumper tipping routes are maintained to reduce risks;
 - Ensuring any faults on the vehicles are rectified immediately or the vehicle is taken out of action.

SITE GRADIENTS (DUMPERS / ROLLERS)

- Do not exceed maximum stated gradients, these can be found on the decal sticker (dumpers), on the rear of the dumper bucket and in the manufacturers handbook for rollers.
- Do not turn across gradients.
- Do not suddenly brake in wet, muddy, icy conditions or when operating on loose surfaces.
- Travel straight up, down or along a gradient (as long as it is within the plants working gradient capabilities).
- Keep speed to a minimum and use the foot brake to reduce speed when travelling down gradients.
- Always engage handbrakes when stopped on sloping ground to prevent movement, and in addition chock wheels securely if machine is left unattended in this position.
- Always position swivel skips in central lock.
- Dumpers are not to be used on stockpiles / spoil heaps under any circumstances, spoil heaps must be constructed by excavators, with dumpers tipping at the base of the spoil heap.

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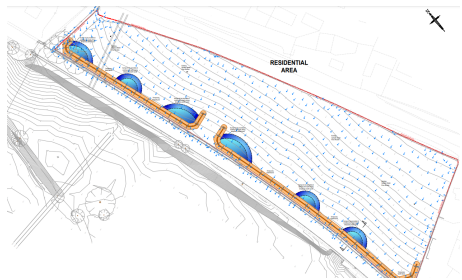
DUMPER SAFE ZONES



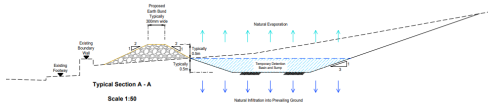
- **Yellow Zone**
All personnel involved with the plant operation must maintain visual contact with the Dumper operator.
- **Amber Zone 1**
Always signal the plant operator and receive a positive response before entering into the zone .
- **Red Zone 2**
Keep out at all times.
Anyone approaching plant must make eye contact with the operator and wait until signalled.
All persons working on site must wear high visibility clothing.

SURFACE WATER MANAGEMENT

- Due to the existing topography of the site - there is a natural flow of water running down the site towards Penistone Road.
- The aim is to provide a bund running the full length of the elevation to provide a catchment and prevent any ground water breaching the site into Penistone Road or the existing top water system.
- In addition to the bund, a series of six basins will be excavated along the bund line providing low spots for the water to collect.
- The basins will be constructed to allow the surface water to permeate back into the ground along with natural evaporation.

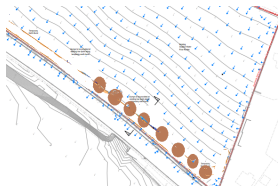


- Each basin will be constructed with a 1 in 3 fall running down the site, and a 1 in 2 fall adjacent the bund. The basin will be constructed to keep the water level a minimum of 500mm below the top of the bund level.



METHOD OF WORKS

- Management will initially work alongside the engineer to identify materials on site which can be removed and reused to form the bund along the Penistone Road elevation. The areas will be excavated by a I4T 360 excavator and loaded into a 9T dumper for secondary transfer to the bottom end of the site. The spoil will be dropped along the Penistone Road elevation at regular intervals.

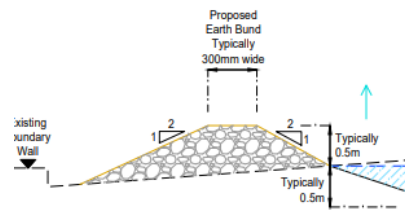


- Using the I4T excavator the piles of spoil will be spread and shaped to form the bund running along the full elevation returning either side of the site entrance.

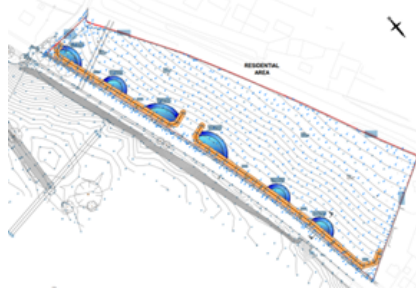


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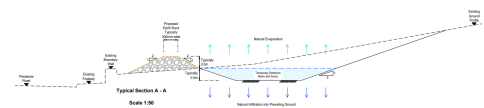
- The bund will be created to provide a 2 in 1 gradient either side with an approximate height of 500mm above existing ground level, with a 300mm span at the top of the bund.



- With the bund complete operations will turn to the excavation of six basins located across the elevation of the bund. The basins have been designed at the low points along the elevation to encourage water to flow to these areas where it will collect and permeate through the existing ground.



- To excavate the basins the following procedure will be adopted, using the 14T excavator a fall of 1 in 2 will continue from the base of the bund to a depth of 500mm below existing ground level. A 3m base will then be excavated at the same depth of 500mm below existing ground level. Operatives will then begin to rise back up at a 1 in 3 until the gradient meets back with the existing ground level.



- This operation will be repeated across the six basin locations across the Penistone Road elevation.
- Daily monitoring of the basins will be undertaken to check levels and ensure the system is operating as expected. In circumstances where the system is not providing sufficient permeation, immediate action will be initiated, arrangements will be made for the water to be pumped out of the basins by tanker and removed from the site.
- In the event that there is a regular requirement to pump off water from the basins - alternative systems will be planned, generally this will involve the use of settlement tanks to remove any silts from the surface water and allow for clean water to be pumped back into the existing drainage system.

