

Drainage Maintenance Plan

For The Site At

Land at Carlinghow Hill, Batley

PREPARED BY	CHECKED AND APPROVED BY
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INTRODUCTION

The purpose of this document is to set out the maintenance requirements for the Drainage system at Carlinghow Hill in Batley.

The document will give guidance to the maintenance schedule for individual components of a drainage system. The maintenance schedule should not only include routine maintenance of the components but also a routine inspection program to ensure failures are located quickly and corrected using appropriate methods.

Maintenance requirements for the components should be obtained from the manufacturer and followed at all times.

This document has been created taking reference from Ciria, various third party Maintenance Manuals, and Design Manual for Roads and Bridges.

The implications of not meeting the requirements set out within this document is the potential for flooding of dwellings and open areas on the site.



COMPONENTS

The following components form the Drainage system and need to be maintained as indicated within this document or to the Manufacturers details.

- Pipes, foul and surface water system
- Inspection Chambers
- Attenuation system
- Hydroflow Brake

MAINTENANCE SCHEDULES

The below sets out the requirements for maintenance of the Drainage system. The maintenance requirements are based on durations and the occurrence of severe storms. However should water be found ponding on any hard surface around channel drains, road gullies, or foul drains become blocked then this visual identifier will trigger the requirements for investigation and maintenance.

A severe storm is defined as any aspect of weather that poses risk to life, property or requires the intervention of authorities. Severe weather warnings will be issued by the Met Office.

A log of all maintenance and remedial works carried out at the site should be kept. This log is to be passed on should the maintenance contract be given to another organization or the site change ownership.



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PIPES, FOUL AND SURFACE WATER SYSTEM. CLAY OR PLASTIC

To be checked annually by CCTV survey and debris removed by high pressure jetting. A list of defects should be compiled with high, medium and low risk of failure. High risk defects should be fixed immediately, medium risk should be fixed within 6 months and low risk to be monitored annually.

INSPECTION CHAMBERS

To be checked annually and after a severe storm by visual survey and debris removed. A list of defects should be compiled and with high, medium and low risk of failure. High risk defects should be fixed immediately, medium risk should be fixed within 6 months and low risk to be monitored annually.

The inspection work is to be completed by Competent Contractors who have the relevant **H&S systems in place & complying with CDM 2015. It is up to the Contractor to devise a safe system of work to complete the tasks and carry out the specific risk assessment prior to carrying out the specific task.**

Deep Chambers are noted on site, these can be extremely dangerous and the removal of lids should not be completed unless by a Competent Contractor who is aware of the depths.

Entering chambers should only be completed as a last resort due to the H&S implications, carry out the specific risk assessment prior to entering the deep chambers.



ATTENUATION SYSTEM

The attenuation system is part of the surface water system and should be jetted, CCTV surveyed and reported on as per the other drainage systems.

The inspection work is to be completed by Competent Contractors who have the relevant **H&S systems in place & complying with CDM 2015. It is up to the Contractor to devise a safe system of work to complete the tasks and carry out the specific risk assessment prior to carrying out the specific task.**

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HYDROBRAKE

Manufacturers should provide a guide of maintenance tasks with the frequency they should be undertaken and machinery that should or could be used to carry out the tasks.

Removal of the Hydrobrake will require a new neoprene seal to be installed at the time of the removal.

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DEEP MANHOLE NOTES

Deep Chambers are noted on site, these can be extremely dangerous and the removal of lids should not be completed unless by a Competent Contractor who is aware of the depths.

Entering chambers should only be completed as a last resort due to the H&S implications.

The below H&S notes are a suggestion only, every manhole entry should be assessed fully by a Competent Contractor who should make their own H&S notes for every entry.

Working near or in a manhole inherits potential dangers which may result in serious accidents. The common ones include falls/slips, fire or explosion, oxygen depletion, gas poisoning, heat stress, drowning, asphyxiation arising from gas, fume, vapour and entrapment by free flowing solid. Amongst which, dangers involving gases are easily overlooked or neglected, leading to serious casualties.

“Certified workers” must be familiar with the ‘Code of Practice – Safety and Health at Work in Confined Spaces’, and before entering a manhole, they must take all the necessary safety precautions to ensure safety at work.



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Things to Note before Entering a Manhole Enter a manhole only after the responsible person has issued a valid certificate and only within the period specified in the certificate. Before issuing such a certificate, a proprietor or a contractor shall employ a “competent person” to conduct a risk assessment, including the use of appropriate equipment to test the air inside the manhole. Worker should never use out-dated methods.

The responsible person shall implement the safety measures recommended by the “competent person”, and maintain the effective operation of such measures in the course of work.

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Safety measures for the prevention of gas poisoning include:

- *Blank off all pipelines connected to the manhole to prevent any dangerous gas or fume from entering the manhole.*
- *Remove any sewage or sludge in the manhole beforehand to prevent any toxic or noxious gases that may have accumulated in it from being released and endangering the workers in the manhole in the course of their work.*
- *Use a ventilating blower to supply fresh air into the manhole to ensure that the air inside is maintained safe for the workers.*
- *Ensure a sufficient supply of power outlets for the operation of the ventilation blower(s).*
- *The responsible person shall take other safety measures, such as erecting fencing, posting of warning notices, etc., to ensure the safety of relevant personnel.*



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Things to Note When Entering and Staying in a Manhole

- *The responsible person shall have implemented all the safety measures recommended by the “competent person” before issuing a certificate to enter a manhole.*
- *Entry to the manhole should only be completed as a last resort and should be assessed by a Competent Person.*
- *Manholes should be fully cordoned off for the expected level of pedestrian or vehicle access to the area.*
- *Manholes should not be surcharged at the time of entry.*
- *The manhole should only be entered if the required amount of competent personnel are present and have been fully briefed and have the correct equipment.*
- *Before any person enters a manhole, there shall be a sufficient number of persons on standby outside, including those who are appointed to carry out a rescue operation inside the manhole and those responsible for support services outside when such an operation is necessary.*
- *While working in a manhole, if there are signs indicating that the safety of the workers are under threat, for example, the equipment that continuously monitors the quality of the air gives warning alarms, then evacuation of the workers from the dangerous environment shall be made according to the emergency procedure, and the “competent person” shall reassess the environment afterwards.*
- *Should an accident occur, inform the relevant government departments like the Fire Services Department at once for rescue. Only site personnel who have been suitably*



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trained shall use the appropriate rescue equipment so provided to conduct the rescue operation according to the emergency rescue procedure, if possible.

Things to Note:

- *Some work, like that for flow interception and drainage connections, may be carried out in manholes where the environment is ever changing and the conditions are difficult to assess. The responsible person shall ensure that workers conducting such work put on breathing apparatus of the approved type, safety harnesses and rescue ropes before entering a manhole. Workers shall also properly use such protective equipment in the course of work.*
- *The responsible person shall provide and inspect all equipment (like resuscitators) and personal protective equipment (like approved breathing apparatus, safety helmets, protective clothing, safety harnesses and rescue ropes). An employer shall also be responsible for providing training to ensure that the workers understand clearly how such equipment and tools are to be used.*

At any time, especially when an accident has occurred, workers shall not enter a manhole without any rescue equipment and support. In case of an accident, police should be informed immediately for help and the management should be notified.

Remember: In the course of work, the management staff should keep close supervision at all times



MAINTENANCE CONTRACTOR/MANAGEMENT COMPANY DETAILS:

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ADVICE WITH REPORT

Please do not hesitate to contact us if you wish to go through any section of the report in more detail or require any additional advice.

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