Project Name:	Residential Site at the Whitehall Road West, Birkenshaw
Client:	Orion Homes Ltd
Subject:	Drainage Maintenance and Management Plan
Reference:	2306-DMMP-001
Date:	30.01.26

Introduction

1. Orion Homes Ltd have prepared a Drainage Maintenance and Management Plan for the prospectively adoptable foul and surface water drainage networks proposed to serve the new residential development at the Whitehall Road West, Birkenshaw.

The site will be served by separate foul and surface water sewers. The foul water is to discharge into the existing foul sewers located in Heathfield Lane to the south of the site and the surface water will outfall, at a restricted discharge rate, to an existing culvert located in Whitehall Road West to the north of the site as shown on the Proposed Drainage Layout as shown on drawing number 23-341-500-001 rev R - Drainage Layout contained in appendix 1.

Both the foul and surface water is conveyed by gravity to the agreed outfall point and the new networks will consist of pipes, chambers, (manholes) gullies, surface water storage tanks and flow control device chambers.

The intention is for the main drainage networks to be adopted by Yorkshire Water (YW) under a Section 104 Agreement of the Water Industry Act 1991 who will adopt and maintain the systems on the satisfactory completion of the construction of the drainage networks and occupation (usually 51%) of the connected properties.

This plan will set out the inspection, maintenance and remedial actions that Orion Homes Ltd will undertake up to the point the systems are adopted by YW.

Specific Drainage Elements

2. The specific drainage elements on this scheme that will be subject to regular inspection, maintenance and remedial works can be distinguished in the following categories:-

- Highway Drainage and Gullies
- Inspection Chambers (manholes)
- Pipes, Sewers / Carrier Drains
- Attenuation Tanks
- Vortex Flow Control Device and Chamber

Highway Drainage and Gullies

The new highway drains and gullies will ultimately be adopted by the Local Highway Authority under Section 38 of the Highway Act 1980.

Up to the point of adoption by the Local Highway Authority Orion Homes Ltd will undertake a regular monitoring and inspection regime and resulting remedial works in accordance with the Operation and Maintenance Requirements contained in appendix 2.

It would be usual that before the adoption of the infrastructure the installation would be subject to a joint inspection by the Developer and Adopting Authority and a remedial works list would be agreed and work carried out to ensure the inspected arrangements would be accepted by the approving authority.

Inspection Chambers (manholes)

Inspection chambers will ultimately be adopted by YW under Section 104 of the Water Industry Act 1991.

Up to the point of adoption by YW, Orion Homes Ltd or their appointed Management Company will undertake a regular monitoring and inspection regime and resulting remedial works in accordance with the Operation and Maintenance Requirements contained in appendix 2.

It would be usual that before the adoption of the infrastructure the installation would be subject to a joint inspection by the Developer and Adopting Authority and a remedial works list would be agreed and work carried out to ensure the inspected arrangements would be accepted by the approving authority.

Pipes / Carrier Drains

The new pipes, sewer and carrier drains will ultimately be adopted by YW under Section 104 of the Water Industry Act 1991.

Up to the point of adoption by YW, Orion Homes Ltd will undertake a regular monitoring and inspection regime and resulting remedial works in accordance with the Operation and Maintenance Requirements contained in appendix 2.

It would be usual that before the adoption of the infrastructure the installation would be subject to a joint inspection by the Developer and Adopting Authority and a remedial works list would be agreed and work carried out to ensure the inspected arrangements would be accepted by the approving authority.

Attenuation Tanks

The new surface water attenuation tank will ultimately be adopted YW under Section 104 of the Water Industry Act 1991.

Up to the point of adoption by YW, Orion Homes Ltd will undertake a regular monitoring and inspection regime and resulting remedial works in accordance with the Operation and Maintenance Requirements contained in appendix 2.

It would be usual that before the adoption of the infrastructure the installation would be subject to a joint inspection by the Developer and Adopting Authority and a remedial works list would be agreed and work carried out to ensure the inspected arrangements would be accepted by the approving authority.

Vortex Flow Control Device and Chamber

The new vortex flow control device and chamber will ultimately be adopted YW under Section 104 of the Water Industry Act 1991.

Up to the point of adoption by YW, Orion Homes Ltd will undertake a regular monitoring and inspection regime and resulting remedial works in accordance with the Operation and Maintenance Requirements contained in appendix 2.

It would be usual that before the adoption of the infrastructure the installation would be subject to a joint inspection by the Developer and Adopting Authority and a remedial works list would be agreed and work carried out to ensure the inspected arrangements would be accepted by the approving authority.

Health and Safety

3. All the works, inspections, monitoring and remedial works should be undertaken by suitably qualified, accredited and competent professionals implementing recognised safe systems of work, Method Statements and Risk Assessment where necessary.

   In addition to the above, any specific drainage components should be operated, inspected and maintained in accordance with the manufacturer's requirements and specifications.

Appendices

Appendix 1 23-341-500-001 rev R – Proposed Drainage Layout
Appendix 2 Operation and Maintenance Requirements

Appendix 1 - 23-341-500-001 rev R - Drainage Layout

Appendix 2 - Operation and Maintenance Requirements

Operation and Maintenance Requirements

Highway Drains and Gullies

Schedule	Required Action	Frequency
Regular maintenance	Gullies should be cleaned at regular intervals. Jet-washing and suction-borne methods are recommended, with the contents disposed of at a licenced waste facility.	Bi-annually
	Covers and frames should be inspected at regular intervals, particularly to check line and level, and to ensure integrity, security of hinges and to check line/level is within safe and workable tolerance.	Bi-annually
Remedial actions	Repair covers and frames if required.	As required
Monitoring	Inspect gullies and connections to ensure that they are in good condition and operating as designed	Annually and after large storms

Operation and Maintenance Requirements

Inspection Chamber (manholes)

Schedule	Required Action	Frequency
Regular maintenance	Visual inspection of manholes and inspection chambers, to check for any siltation or obstruction to flow, should be undertaken at regular intervals, recommended not more than six months apart.	Bi-annually
	Covers and frames should be inspected at regular intervals, particularly to check line and level, and to ensure integrity, security of hinges and to check line/level is within safe and workable tolerance.	Bi-annually
Remedial actions	Repair covers and frames if required.	As required
Monitoring	Inspect inspection chambers and manholes to ensure that they are in good condition and operating as designed	Annually and after large storms

Operation and Maintenance Requirements

Pipes, Sewers / Carrier Drains

Schedule	Required Action	Frequency
Regular maintenance	Carrier Drains should be cleaned at regular intervals. Jet-washing and suction-borne methods are recommended, with the contents disposed of at a licenced waste facility.	Bi-annually
Remedial actions	Repair in the event of damage.	As required
Monitoring	Inspect flow in Carrier Drains (via manholes) to ensure they are in good condition and operating as required	Annually and after large storms
	Conduct CCTV inspection to confirm pipe condition and confirm and requirements for remediation.	Every 3- 5 years

Operation and Maintenance Requirements

Attenuation Tanks

Schedule	Required Action	Frequency
Regular maintenance	Inspect and identify any areas that are not operating correctly. If required, take remedial action	Monthly for 3 months, then annually
	Remove debris from the catchment surface (where it may cause risks to performance)	Monthly
	Remove sediment from pre-treatment structures and/ or internal forebays	Annually or as required
	Repair / rehabilitate inlets, outlet, overflows and vents	Annually, or as required
	Inspect inside of tank for sediment build-up and remove if necessary.	Every 5 years or as required
Remedial actions	Repair /restore inlets, outlets, vents and overflows	Every 5 years or as required
Monitoring	Inspect. Check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed	Annually
	Survey inside of tank for sediment build up and remove if necessary	Every 5 years or as required

Operation and Maintenance Requirements

Flow Control Device and Chamber

Schedule	Required Action	Frequency
Regular maintenance	Visual inspection of manholes and inspection chambers, to check for any siltation or obstruction to flow, should be undertaken at regular intervals, recommended not more than six months apart.	Bi-annually
	Covers and frames should be inspected at regular intervals, particularly to check line and level, and to ensure integrity, security of hinges and to check line/level is within safe and workable tolerance.	Bi-annually
Remedial actions	Repair covers and frames if required.	As required
Monitoring	Inspect inspection chambers and manholes to ensure that they are in good condition and operating as designed	Annually and after large storms
	Neoprene Seal / Rubber Gasket	Annually