



DRAINAGE STRATEGY REPORT
In response to planning condition 30 (ref: 2019/1573)

Rockingham Phase 2
Dearne Valley Parkway, Barnsley.

Reference

AMF/DS/Y20112.v2

Date

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Confidentiality Statement

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Document History

VERSION	PURPOSE/DESCRIPTION	DATE
1	First Issue	21.05.2021
2	Final Issue	21.05.2021

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Appendix B	Eastwood & Partners drainage layout drawing
Appendix C	JPG Drainage and Flood Risk Statement
Appendix D	JPG Attenuation Basin drawing
Appendix E	Drainage Maintenance and Management plan

1.0 INTRODUCTION

RWO Group (RWO) has been instructed by Harworth Group to prepare a Drainage Strategy report to support a reserved matters planning application for a proposed development known as Rockingham Phase 2 on land off Dearne Valley Park, Rockingham, Barnsley. The report is in response to the specific requirements of condition 30 of the outline planning consent ref: 2019/1573.

2.0 CONDITION 30 – OUTLINE PLANNING CONSENT 2019/1573.

Condition 30 states the following:

'Each reserved matters application shall be accompanied by a scheme which sets out;

- 1. Full foul and surface water details*
- 2. Works to provide outfall of surface water*
- 3. Full details of the relevant phases of Sustainable Urban Drainage including attenuation, storage, and treatment capacities as detailed in the CIRIA SUD Manual (C697)*
- 4. The scheme shall include the following detail:- Information about the design storm period and intensity, the method employed to delay and control the surface water discharged from the site and the measures taken to prevent pollution of the receiving groundwater and/or surface waters;- A timetable for its implementation;- and – A management and maintenance plan for the lifetime of the development which shall include the arrangements for adoption by the public authority of statutory undertaker or any other arrangements to secure the operation of the scheme throughout its lifetime.*

The development of each phase shall thereafter be implemented in accordance with the approved sustainable urban drainage scheme and maintained thereafter in accordance with the approved management and maintenance plan.

Reason: To ensure proper, sustainable drainage of the area in accordance with Local Plan Policy CC3 and CC4 and to reduce the risk of contaminating surface water run-off and to reduce the risk of localised flooding and downstream flooding in accordance with Local Plan policy Poll1 Pollution Control and Prevention.

3.0 RWO RESPONSE TO CONDITION 30

RWO response to condition ref 1. *Full foul and surface water details*

Foul and surface water drainage is detailed on RWO drainage layout drawings Y20112-D200, D201 & D202 provided in Appendix A and is summarised below.

Foul water

Foul water from the new buildings will discharge to a new foul water sewer that will connect to an existing foul water sewer to the northwest of the site. The existing sewer was constructed in 2019 as part of the E V Waddington Limited development and is detailed on Eastwood and Partners drawing provided in Appendix B. The existing sewer is proposed for adoption by Yorkshire Water, the status of which is not known at the time of writing.

The new foul water sewers serving the development site will be put forward for adoption by Yorkshire Water under a Section 104 agreement.

Surface water

The principles of surface water drainage for the site are in accordance with the details set out in JPG Consulting Engineers Drainage and Flood Risk Statement (ref: 4652-2-JPG-XX-XX-RP-D-0620-S2-PO1) which accompanied the outline planning application. A copy of the report is provided in Appendix C.

Surface water discharge from the Phase 2 site will be restricted to the equivalent greenfield discharge rate of 62.2 litres/second discharging to a tributary of Short Wood Dike to the west of the site. Due to the surface water flow restriction surface water attenuation will be provided in the form of an open attenuation basin located to the west of the site adjacent to the watercourse. Details of the attenuation basin are presented on JPG drawing no. 4652-2-SW-00-DR-D-1451-S2-PO3 provided in Appendix D.

As advised in the JPG Drainage and Flood Risk Statement the attenuation basin has been designed to accommodate up to and including a 1:100-year return period storm including an allowance of 30% for the future effects of climate change.

The attenuation basin is currently being constructed under a site infrastructure works contract.

The new surface water sewers serving the development site up the attenuation basin will be put forward for adoption by Yorkshire Water under a Section 104 agreement. It is proposed that the attenuation basin will be retained by the Developer and maintained under an agreement with a facilities management company.

The initial 3 buildings covered under the reserved matters planning application will be drained to a surface water sewer within the new access road which will drain to a temporary surface water drainage swale before discharging to the attenuation basin. As there are no fixed layouts for the development of the remainder of the site a temporary swale has been provided to allow flexibility of the development layout. Ultimately the temporary swale will be abandoned and a piped outfall to the basin constructed once the site layout is finalised.

RWO response to condition ref 2. *Works to provide outfall of surface water.*

As note above surface water will discharge to a tributary of Short Wood Dike to the west of the site via a reinforced concrete headwall. Details of which are basin are presented on JPG drawing no. 4652-2-SW-00-DR-D-1451-S2-PO3 provided in Appendix D.

RWO response to condition ref 3. Full details of the relevant phases of Sustainable Urban Drainage including attenuation, storage, and treatment capacities as detailed in the CIRIA SUD Manual (C697)

The attenuation basin is currently being constructed under a site infrastructure works contract and is due for completion during late summer 2021.

As advised in the JPG Drainage and Flood Risk Statement the attenuation basin has been designed to accommodate up to and including a 1:100-year return period storm including an allowance of 30% for the future effects of climate change.

RWO response to condition ref 4. The scheme shall include the following detail:- Information about the design storm period and intensity, the method employed to delay and control the surface water discharged from the site and the measures taken to prevent pollution of the receiving groundwater and/or surface waters;- A timetable for its implementation;- and – A management and maintenance plan for the lifetime of the development which shall include the arrangements for adoption by the public authority of statutory undertaker or any other arrangements to secure the operation of the scheme throughout its lifetime.

As advised in the JPG Drainage and Flood Risk Statement the attenuation basin has been designed to accommodate up to and including a 1:100-year return period storm including an allowance of 30% for the future effects of climate change. Flows from the basin will be restricted by a proprietary flow control device located in a chamber before connection to the watercourse.

Surface water runoff from the service yard and car parking area will be passed through a full retention/bypass separator before discharging to the infrastructure surface water drainage system. The location of the separators is indicated on the drainage layout drawings provided in Appendix A.

The main foul and surface water infrastructure sewers will be put forward for adoption by Yorkshire Water under a Section 104 agreement. The attenuation basin will be retained by the Developer and maintained under an agreement with a facilities management company as will the main foul and surface water infrastructure sewers until they are formally adopted by Yorkshire Water.

A Drainage Maintenance and Management plan is included in Appendix E providing details of maintenance procedures for various elements of the drainage infrastructure along with recommended timescales for maintenance activities.



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For and behalf of RWO Group