

Read Construction
Barkers Lane
Primary School,
Foul Drainage Statement

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Contents

	Page
I Introduction	3
1.1 Commission	3
1.2 Limitations	3
2 Existing Site and Proposed Development	4
2.1 Existing Site	4
2.2 Existing Foul Sewer Network	4
2.3 Proposed Development	4
2.4 Proposed Foul Sewer Drainage	4
2.5 Foul Sewer Calculations	5
Appendix 1 - Site Location	6
Appendix 2 – Welsh Water Public Sewer Records	7
Appendix 3 – Existing and Proposed Drainage Layout	8

1 Introduction

1.1 Commission

JP Structural Design were appointed by Read Construction to produce a Foul Sewer Drainage Statement to support the proposed extension at Barkers Lane Primary School, Wrexham. The Statement will focus on foul drainage for the proposed development in accordance with the relevant guidance, policies and statutory requirements.

1.2 Limitations

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The findings of this Statement have been based on data available at the time of the study and on the review of available information that has been undertaken to date. They relate to the current development proposals as outlined in **Appendix 3**. Should the proposed end use of the site change after the completion of this assessment, then the findings of this report will need to be reviewed and updated accordingly.

2 Existing Site and Proposed Development

2.1 Existing Site

Barkers Lane Primary School is located on Barkers Lane, in the Borras area of Wrexham, with the centre of the site at National Grid Reference SJ 345 530. See **Appendix 1** for site location.

Barkers Lane is a school for 3 – 11 year old students and comprises hardstanding play areas, playing fields, car parking, access and egress meeting rooms, offices, a hall, childcare facilities and teaching blocks with associated kitchens, toilets, storage rooms.

2.2 Existing Foul Sewer Network

A Topographical and CCTV survey was carried out at the site to help establish the existing connectivity across the site. The investigations confirmed that the site is served by separate private surface water and foul sewer systems.

Public sewer records have been obtained from Dwr Cymru Welsh Water (DCWW) which confirm the public sewer network within the vicinity of the site. See **Appendix 2** for the Welsh Water public sewer records.

The CCTV survey confirmed that the foul sewerage from the existing School discharges via a 150mm diameter foul sewer pipe into a public sewer manhole, located within Lisburne Grove.

The surface water discharges to a network of soakaways contained within the site.

2.3 Proposed Development

The proposed development comprises 2 single storey extensions to the east and west of the existing School to create a new nursery and reception class and subsequently allowing the current nursery to be split into 3 new classrooms as part of remedial works to the existing building. The scheme also includes landscape enhancements, the construction of a mixed use games area (MUGA) and a new car park, all of which will drain to soakaway along with the roof area.

See **Appendix 3** for the proposed layout.

2.4 Proposed Foul Sewer Drainage

It is proposed to connect the new foul drainage from new toilets, wash handbasins, cleaners sinks via gravity, into the existing foul drainage system on site. No new adoptable drainage runs will be required and the additional foul flow will ultimately discharge into the Dwr Cymru Welsh Water (DCWW) sewer located in Lisburne Grove via the existing foul sewer connection. The existing and proposed foul drainage arrangements are included in **Appendix 3**.

A Section 106 agreement will be required to obtain consent from DCWW to accept the additional flows from the proposed extensions and will be submitted in due course.

2.5 Foul Sewer Calculations

The scheme therefore ultimately entails the relocation of the nursery / reception area and subsequent creation of 3 new classrooms which comprise a total additional floor area of 168m². Allowing 2.5m² per pupil, this would see an overall population increase for the site of approximately 67 pupils, and circa 8 additional staff.

Allowing a typical usage of 90 l/day for pupils and staff, over an 8 hour day with a peaking factor of 6 would see the peak discharge from the site increase by circa 1.41 l/s.

(Based upon the British Water Code of Practice's Table of Loadings for Sewerage Disposal Facilities).

Appendix I - Site Location

Appendix 2 – Welsh Water Public Sewer Records

Appendix 3 – Existing and Proposed Drainage Layout