

Read Construction
**Borras Park Community
Primary School,**
Foul Drainage Statement

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1 Introduction

1.1 Commission

JP Structural Design were appointed by Read Construction to produce a Foul Sewer Drainage Statement to support the proposed building development within the grounds of Borras Park Junior School and minor refurbishments to the existing Borras Park Infant school. 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

Borras Park Junior and Infant School are located on Borras Park Road, approximately 0.3km to the south west of the A5156 link road to Wrexham Industrial estate, with the centre of the site at National Grid Reference SJ 351 519. See **Appendix 1** for site location.

Borras Park Primary School is a school for 3 – 11 year old students and comprises hardstanding play areas, playing fields, car parking, access and egress off Borras Park Road, meeting rooms, offices, a hall, childcare facilities and teaching blocks with associated kitchens, toilets, storage rooms and Hearing Impaired Units. The Junior school shares its grounds, including parking facilities with the Borras Park Surgery and Community Centre.

2.2 Existing Foul Sewer Network

A Topographical and CCTV survey was carried out for 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 existing foul sewerage from the Junior School discharges via an existing 150mm diameter foul sewer pipe into a public sewer manhole, located within the centre of Borras Park Road, DCWW ref SJ35511901.

The CCTV survey also confirmed that the existing foul sewerage from the Infant School discharges via an existing 150mm dia foul sewer pipe into a public sewer manhole, located within the centre of Borras Park Road, DCWW ref SJ35510801.

The public sewer records depict an existing 1300 dia sewer running in close proximity to the Infant School south western boundary, however this will not be affected by any of the current proposals.

The existing surface water generated by the site is discharged to a network of soakaways located across the site.

2.3 Proposed Development

The purpose of the proposed development is to extend the existing Borras Park Junior school to incorporate the current infants school and nursery / reception. The existing infants school site will then be converted into a Welsh medium school.

The physical development therefore comprises a 2-storey steel framed extension to the rear of the existing Junior School with a small single storey extension to the front of the Junior School to create a total of 8 new classrooms and a nursery / reception area.

The scheme also includes landscape enhancements, the creation of an ecology/forest school area with a pond and the construction of two mixed use games areas (MUGAs). The Infant School includes refurbishment to a section of the internal layout of the existing building. The proposed development site for Borras Park Primary School is approximately 3.02ha.

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 by gravity, into the existing foul drainage system on site. No new adoptable drainage runs will be required for either the Junior and / or existing Infant School. The additional foul flow will ultimately discharge into the Dwr Cymru Welsh Water (DCWW) sewer located in Borras Park Road via each existing connection. The existing and proposed foul drainage arrangements are included in **Appendix 3**.

Grease traps will be incorporated into the new above ground foul drainage system which will serve the extended kitchen area.

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 creation of 8 new classrooms and a nursery / reception area which comprise a total additional classroom area of 565m².

Allowing 2.5m² per pupil, would see an overall population increase for the site by approximately 226 pupils, and circa 14 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 4.5 l/s.

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

However, the existing site also currently comprises the community centre. As part of the proposed development the external cabins, which are located within the existing car park of the Junior School, are to be removed although this is considered to have minimal impact on the peak foul flow.

Similarly, It is assumed that the population of the infants school population will remain relatively consistent pre and post the minor refurbishment works.

The post development proposed Peak Foul Flows for the site is therefore likely to increase by circa 4.5 l/sec

Appendix I - Site Location Plan

Appendix 2 – Welsh Water Public Sewer Records

Appendix 3 – Existing and Proposed Drainage Layout