

BMC Drainage Design Statement**Openshaw Campus, The Manchester College (J6776)**

The site known as Openshaw Campus, The Manchester College, M11 2WH is due for development with the proposed construction of a new Construction Workshop facility and multi-storey teaching and Sports Hall building. This statement is to be read in support of proposed drainage layout and details drawings OC-BM-ZZ-FN-DR-D-4001 and OC-BM-ZZ-FN-DR-D-4002. The drainage scheme was designed in accordance with the National Planning Policy Framework i.e. in accordance with Sustainable Drainage Systems (March 2015).

The site is to be developed in two phases with the first phase encompassing the Sports Hall and Workshop and surrounding external works areas, with a second phase to include the development of a Multi Use Games Area (MUGA) to the west of the site and additional car parking space to the north-west. The drainage system proposed includes for all surface run-off generated as a result of the phase 1 of the development, with an additional allowance provided and shown 'greyed out' on the drawings for the phase 2 works. The scheme was developed to adhere to the principles set out in the approved Drainage Strategy Report produced by Building Design Partnership Ltd. (BDP) and to be in accordance with the agreed acceptable design surface water flow rates outlined within.

The Phase II site investigation carried out by LTE Group demonstrated that the site is underlain by significant depths of made ground and natural clay. Soakaway tests highlighted that discharge of surface water run-off via infiltration would not be viable. In accordance with the BDP Drainage Strategy, the scheme was designed with the following flow rates;

1 in 1 year storm

Allowable = 26.23 L/s	Actual = 26.10 L/s	Outcome = No Flooding
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1 in 30 year storm

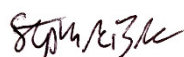
Allowable = N/A L/s	Actual = 36.20 L/s	Outcome = No Flooding
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1 in 100 year storm plus 40% allowance for climate change

Allowable = 82.82 L/s	Actual = 57.40 L/s	Outcome = No Flooding
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Flow rates were reduced and run-off contained on site through the use of proprietary attenuation storage crates in conjunction with a hydraulic flow limiter. Additionally, provision of 'Green SuDs' was included in the form of two proposed 'rain gardens'; one to the rear of the existing retaining wall to the south of the site, and one towards the north-west of the site, included as part of the phase II works. Each 'rain garden' has been designed to provide approximately 4.67m³ and 15.44m³ of surface water storage respectively.

Sincerely,



Steve McBride

For and on behalf of Bell Munro Consulting Limited