

Calculation Sheet



Project: Plas Coch – Glyndwr University, Wrexham

Made by:	Date:	Project No:	Checked by:	Approved by:	Page No:
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Item	Calculation	Output
Objective	Detailed design of new foul drainage for residential scheme at Plas Coch (Northern Quarter Glyndwr University).	
Overview	Foul system drained to retained sewer run from eastern side of site out to DCWW sewer in Crispin Lane. Retained (refurbished) sewer presented for adoption under S102 agreement. Storm drainage infiltrated on site – see separate calculations set. Uses permeable-paved driveways with individual infiltration/attenuation elements, similar for communal parking areas. Run-off from roofs and main spine road directed to a series of communal soakaways spread around the site.	
Design & adoption	Trunk foul sewer network to be adopted by Dwr Cymru: Foul drainage: <i>Welsh Ministers standards for new gravity foul sewers and lateral drains, Oct 2012</i> Communal soakaway and supplementary storage features to be adopted by Flintshire District Council as SAB or to reside with Residents Management Company. Storm sewer network to reside with RMC. Permeable driveway elements to rest with householders. The internal road system will be maintained and owned by a RMC. All highway drainage and communal parking drainage will rest with the same body.	
Foul sewer design	For sewers serving up to 10 properties: 100Ø at 1:80 max For sewers serving 11+ properties: 150Ø at 1:150 max Private drainage based on Building Regs pt H Total peak flow from 91 units = $91 \times 4000 / 24 \times 3600 = 4.2$ l/s, well within capacity of 150Ø at 1:150 (12.6 l/s)	
	For trunk sewer layout see dwgs 109540/504-506 For private drainage layout see dwgs 109540/521-532 For trunk sewer construction details see dwgs 109540/510-511 For private drainage construction details see dwg 109540/512 For h'way drainage construction details see dwg 109540/542	
Associated CAD files	Scheme layout (DS Jones) <i>x-Nth qtr set out model 29.07.21.dwg</i> Main drainage layout CAD file <i>x-trunk drainage layout v7.dwg</i> Road contours CAD file <i>ACAD-Plas Coch Road C3D v3.0.dwg</i> Private drain layout CAD file <i>x-private drainage layout v1.dwg</i>	