

Appendix D Other Documents

PBA Charlie Ratchford House Camden Proposed Foul & Storm Drainage Strategy

Microdrainage Calculations

SFRA Figures:

- Figure 2 LB Camden Surface Waterbodies
- Figure 3ii Updated Flood Maps for Surface Water Flooding (uFMfSW)
- Figure 4e Increased Susceptibility to Elevated Groundwater
- Figure 5a DG5 Internal Sewer Flooding
- Figure 5b DG5 External Sewer Flooding
- Figure 6 Critical Drainage Areas/ Local Flood Risk Zones

CS and DP Maps



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Date of 1st Issue Drawn by 29.10.14 TAJP A1 Scale Checked by 1/200 JS Drawing Number Revision 31103/C/20/01 P1	Client LB CAMDEN	CHARLIE RATCHFORD CAMDEN PROPOSED FOUL & ST STRATEGY	P1 ISSUED FOR COMMENT Mark Revision SCALING NOTE: Do not scale from this drawing. If in doubt, asl UTILITIES NOTE: The position of any existing public or private se drawing is believed to be correct, but no warranty to this is express be present but not shown. The Contractor is therefore advised to any existing sewers, services, plant or apparatus may affect his o Drawing Issue Status P R E LIM	Image: Second state of the second s	 5. THE SW RUN-OFF FROM THE PROPOSED IS TO BE LINIT IS ASSUMED THAT ALL SW ATTENUATION WILL BE WITH CONTROLLED OUTLETS (Omax = 1.5 I/s) AS NOT THE GREEN ROOF DESIGNER & ARCHITECT - TBC AT IT IS ASSUMED THAT THE SW RUN-OFF FROM BALCO DISCHARGE FREELY TO THE U/G SW DRAINAGE SYS STAGE. 6. ALL RWP LOCATIONS ARE SUBJECT TO VERIFICATION DESIGNER. 6. ALL RWP LOCATIONS ARE SUBJECT TO VERIFICATION DESIGNER. 7. THE PROPOSED DRAINAGE LAYOUT IS SUBJECT TO PROPOSED SUB-STRUCTURE DESIGN & SERVICES LAYOUT. 8. ALL EXISTING ABANDONED DRAINAGE RUNS ARE TO BE DEMOLISHED. 9. LOCATION & DETAILS OF ALL EXISTING DRAINAGE TO CONSTRUCTION & REPORTED TO THE ENGINEER FOR LAYOUT. 10. ALL ABOVE GROUND FOUL DRAINAGE IS TO THE SE IN SHED LEVEL DESIGN. 	NOTES 1. THE DRAWING IS TO BE READ IN CONJUNCTION WITH STRUCTURAL, CIVIL & SERVICE ENGINEERS DRAWIN 2. THE EXISTING ON-SITE DRAINAGE INFORMATION IS A UTILITIES TRACE SURVEYS. 3. THE DRAINAGE DESIGN IS SUBJECT TO THE APPROV 4. ALL WORKS TO BE IN ACCORDANCE WITH THE NB SF EDITION.
Offices throughout the UK and Europe www.peterbrett.com © Peter Brett Associates LLP LONDON		HOUSE ORM DRAINAGE	TAJP 29.10.14 JS TAJP 29.10.14 JS Drawn Date Chkd k. Drawn Date Chkd ssed or implied. Other such plant or apparatus shown on this services, plant or apparatus may also undertake his own investigation where the presence of perations. INARY	SEWER (FROM RECORDS)	MITED TO 5 <i>Is</i> as follows, In a 'green' roof construction make-up ted & Is subject to co-ordination with "detail design stage. DNES, roofs & service road will tem (Qmax = 3.5 <i>Is</i>) - tbc at detail design e service road, tbc at detail design e service road, tbc at detail design final design & co-ordination with the ayout.) Be removed & associated manholes to) Be confirmed on site prior to) R final approval of the new drainage :RVICE ENGINEERS DESIGN THE PROPOSED	H ALL RELEVANT ARCHITECTURAL, JGS. AS SURVEYED ON THE TOPOGRAPHICAL /AL OF THE LOCAL BUILDING CONTROL. ?ECIFICATION & SEWERS FOR ADOPTION 7th

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Map 5: Surface Water Flood Risk Potential

- 13.26 Thames Water's initial modelling indicates that local infrastructure improvements are likely to be required for Camden's growth areas, specifically King's Cross and Euston. As the combined sewer across the borough is a network, it will be important that all developments release as little foul and grey water (water from sinks, showers and washing machines) into the combined sewer system as possible by minimising the amount of water used on site and maximising re-use of grey water. British Waterways has identified the Regent's Canal as a source of grey water. Larger developments in areas already suffering from surface water flooding can provide the opportunity for improvements to be made to local infrastructure. Thames Water has advised the Council that the existing strategic, 'trunk' infrastructure is likely to be able to accommodate growth levels. In addition, it is building the Thames Tideway Scheme to improve the capacity of London's combined sewer network. Further information on planned sewerage/waste water infrastructure and sustainable urban drainage systems is provided in Appendix 1 *Key infrastructure programmes and projects* (items 60 and 61).
- 13.27 The Council's detailed approach to water use and management within developments is set out in Camden Development Policies (policy DP23 *Water*).

Map 2: Flood Risk



23.5 We only consume a small proportion of water that enters a building. Most of the water we use is for washing and flushing the toilet and therefore leaves the site again. The pumping and cleaning of water to drinking level consumes energy. In order to save energy and drinking water, water should be consumed efficiently and, where possible, treated and consumed close to source. Most of the water we do not consume, including rainfall, ends up in the combined storm water and sewer system. Our increased use of water, along with a growing population and increasing use of impervious surfaces, means more waste water is entering the combined storm water and sewer system, putting pressure on it.

Efficient use of water

23.6 Developments must be designed to be water efficient to minimise the need for further water infrastructure. This can be through the installation of water efficient appliances and by capturing and re-using rain water and grey water on-site. Rainwater harvesting systems are discussed in paragraph 23.8 below. Grey water use captures water from sinks, showers and washing machines for its re-use. Major developments and high or intense water use developments, such as hotels, hostels and student housing, should include a grey water harvesting system. Where such a system is not feasible or practical, developers must demonstrate to the Council's satisfaction that this is the