

CASE STUDY

SDS

Water
Infrastructure
Systems

80 Holland Park

Sustainable development selects SDS grey water recycling system



→ SDS SYSTEMS

SDS WaterBank® Grey Water Recycling System and SDS SYMBiotiC™

→ CLIENT

chapmanbdsp

→ END CUSTOMER

CPC Group

→ PROJECT

'80 Holland Park' residential development, Kensington, London.

→ PURPOSE

To create 25 luxury, sustainable homes in one of London's most exclusive neighbourhoods.

→ BRIEF TO SDS

To provide a grey water recycling system that facilitates the development's compliance with current and anticipated future water consumption regulations.

→ TIMING

Completion in October 2020.

→ PROJECT BACKGROUND INFORMATION

'80 Holland Park' is a new luxury apartment complex located in a prestigious, affluent area of West London on the former site of Duke's Lodge, a neo-Georgian mansion from 1939. The development consists of 25 homes, comprising duplex 'town houses', loft-style apartments and penthouses, along with a swimming pool, spa and gym, residents' lounge, private screening areas and business suite. A private communal garden provides residents' access to the Park.

→ PROJECT OBJECTIVES

To achieve water efficiency criteria of maximum 110 litres mains water consumption per person per day.

→ PROJECT REQUIREMENTS

To provide a bespoke system that enables wastewater from wash basins, showers and baths to be treated and reused throughout the building.

→ SDS PRODUCT FEATURES

A small footprint ensured that the SDS grey water recycling system could fit more easily in the building's plant room than traditional MBR systems.

The system operates at 85.8% efficiency and delivers 2.1m³ treated grey water each day, sufficient to flush all 88 WCs on the development.

The estimated daily grey water yield is just over 3,000 litres when the development is fully occupied.

Using SDS's SYMBiotIC™ cloud-based system, remote monitoring of the system is also enabled, so that any requirement for maintenance visits or servicing can be identified in real time, ensuring continued water supply.

→ ISSUES OVERCOME

By reducing mains water consumption to just 90 litres per person per day, the SDS system has met and exceeded a key condition in the London Plan, whereby Building Regulations set a daily personal limit of 110 litres.

The topography of the site, along with the restricted headroom and layout of the basement level plant room, were key factors in selecting the SDS system. The plant room's central location placed the system within reach of as many as 27 collection outlets.

SYMBiotIC™



Dave Honey, Principal Public Health Engineer, chapman&sp:

"The SDS team provided excellent expert support and produced clear calculations to show precisely how much water their system would process and subsequently provide. This information was also invaluable to our client's environmental engineers to demonstrate the sustainable benefits of the development. By reviewing the full efficiency data, we could also be confident that the size of the system being specified was correct."

"By specifying the SDS system, the collection and storage tanks, which would be separate in an MBR system, could be combined to create a relatively small footprint. This meant the plant room could be located as centrally as possible and the pipework could also be routed without encroaching on the headroom requirements in the basement car park."

