The Netley Project. The London Borough of Camden.
Water Management July 2014.

QA

The Netley Project, Water Management Plan.

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1.0 EXECUTIVE SUMMARY

1.1 This Water Management Plan has been prepared by Greengage Environmental LLP on behalf of the London Borough of Camden to support the discharge of the Section 106 (S106) obligations associated with the redevelopment of the Netley School Site and the Adjoining Woodhall Garages, known as The Netley Project.

1.2 This report discusses the package of measures taken by the Netley Project in respect of the Water Management Plan S106 obligations set forth.

1.3 The identified Water Management measures include:

- Achievement of BREEAM 'Excellent' and Code for Sustainable Homes 'Level 4' ratings to secure the required Mandatory Water Reduction , and
- The mechanism for the control of surface water run-off, comprising of Green Roof construction to capture and slow the progress of water from the roof catchment, and a traditional buried tank incorporating an appropriately sized flow control device.

1.4 The structure of the report in the proceedings sections is set out below:

2.0 Introduction

3.0 The Existing Site

4.0 The Proposed Scheme

5.0 S106 Water Management Plan Requirements

6.0 Water Management Plan

2.0 INTRODUCTION

2.1 This Water Management Plan has been prepared by Greengage Environmental LLP on behalf of the London Borough of Camden (LBC) to support the discharge of the Section (S106) obligation in regards to the redevelopment of the Netley School Site and the Adjoining Woodhall Garages, known as the Netley project.

2.2 This report will discuss the package of measures taken by the Netley Project in respect of the Water Management Plan obligations set forth.

2.3 The purpose of the report is to provide an independent verification that the project has taken the appropriate measures in regards to meeting the requirements for Water Management, as outlined in the S106 agreement.

3.0 THE EXISTING SITE

3.1 The Netley development site is located in the London Borough of Camden (LBC) (OS 529162, 182609) and is surrounded on all sides by residential development. Hampstead Road, William Road, Stanhope Street and Robert Street bound the site, and Everton Buildings runs along the northern section of the site.

3.2 The overall Netley Development comprises of two interconnected sites namely:

i. Netley School

ii. Woodhall garages/Everton Buildings

3.3 The existing buildings that occupy the site include the original Victorian school building including a new extension, the PPRU building, the new school building on the South of the site and a house used by the caretaker.

4.0 THE PROPOSED SCHEME

4.1 The scheme proposes to demolish the existing Primary School fronting William Road and Stanhope Street and construct a new Primary School, Nursery, PPRU and Community Learning Centre along the Stanhope Road elevation of the existing site at ground and first floor levels, with residential accommodation to the second, third and fourth floors above.

4.2 The Victorian school building will be retained, and include a new ground floor entrance from the playground and an accessible lift giving access to upper floors.

4.3 As stated above, the existing ASD unit will be retained, but will be upgraded to provide enhanced accommodation, meeting space and accessible toilet facilities.

4.4 Robson House and the caretaker's house will also be demolished. The proposals include new accommodations for the caretaker as part of the education space.

DEVELOPMENT DESCRIPTION

NETLEY SCHOOL DEVELOPMENT SITE 1

A new building block (block A) to house-

- The Primary Pupil Referral Units (PPRU),
- The Primary learning Support Services (PLSS),
- Netley School Foundation Unit,
- The Community Learning Centre (CLC),
- The main school halls & kitchen,
- Residential accommodation (34 flats on 3 floors above the school).

A NEW RESIDENTIAL BUILDING (BLOCK B)

- 8 Story block of flats to provide 36 residential units.

EXISTING VICTORIAN SCHOOL (BLOCK C)

- Re-modelling works to the existing Victorian Netley school building (block c) and ASD unit.

WOODHALL GARDENS RESIDENTIAL DEVELOPMENT SITE 2

- New Houses- 10 new affordable family homes with play space and pocket parks (block E).

5.0 S106 AGREEMENT WATER MANAGEMENT PLAN REQUIREMENTS

5.1 The Water Management Plan should set out a package of measures to be adopted by the owner and occupiers in the management of the development with a view to:

i. Reducing internal water consumption (including but not limited to the incorporation of dual flush toilets, aerated/flow regulated taps, no or limited size baths, provision of water saving washing machines, grey-water collection and re-use) and external water consumption (including but not limited to grey water collection for water landscaping through water butts or collection tanks). And,

ii. Controlling run-off and flooding and incorporating Sustainable Urban Drainage Systems where appropriate, including green/brown roofs, pervious pavers and on-site water detentions.

5.2 Section 6.0 outlines how each measure is achieved for The Netley Project.

6.0 WATER MANAGEMENT PLAN

6.1 The Netley Project has targeted to achieve Excellent certification under BREEAM New Construction 2011.

6.2 The BREEAM assessment provides a means of measuring the environmental impact of a building. The scoring is achieved under different categories relating to the buildings environmental and sustainability performance. The assessment is carried out throughout the design stage and end post construction stage.

6.3 The Netley project has targeted CSH Level 4 under the Code for Sustainable Homes.

6.4 The CSH aims to encourage and reward best practice through the recognition of improvements made to the design of residential buildings.

6.5 Various credits have been targeted under the Water category for the BRREAM and CSH assessments of the Netley project, fulfilling the requirements to meet these targets will also support the requirements on the S106 agreement.

BREEAM - REDUCING INTERNAL & EXTERNAL WATER CONSUMPTION

6.6 BREEAM Credit Wat 1 Water Consumption. This credit requires the specification of taps, urinals, WCs and showers to consume less potable water in use than standard specifications for the same type of fittings.

6.7 To achieve this credit, the design team have committed to specifying WC's, taps, showers, urinals and (where applicable) washing machines and dishwashers that will allow for a water consumption reduction between 12.5-25% over the notional baseline.

6.8 A 12.5% reduction in internal water consumption is a mandatory requirement of achieving Excellent.

6.9 BREAM Credit Wat 2 Water Monitoring. This credit requires a water meter with a pulsed output to be installed on the mains supply to each building/unit. This is to ensure water consumption can be monitored and managed and therefore encourage reductions in water consumption.

6.10 The design team have committed to installing water meters with pulsed outputs on the mains supply to each building/unit.

6.11 BREEAM Credit Wat 3 Major Leak Detection & Prevention. The aim of this credit is to reduce the impact of leaks that my otherwise go undetected. The credit requires the installation of a leak detection system and the water supply in each WC to be controlled via one of the following:

- A time controller
- A programmed time controller
- A volume controller
- A presence detector and controller
- A central control unit.

6.12 The M&E engineers for the project have confirmed that a major leak detection system will be installed and the water supply to each EC will be controlled.

6.13 BREEAM Credit Wat 4 Water Efficient Equipment. This credit requires a low-water irrigation strategy/system to be installed, or where planting and landscaping is irrigated via rainwater or reclaimed water.

6.14 The design team have confirmed that planting and landscaping would be irrigated manually.

CSH - REDUCING INTERNAL & EXTERNAL WATER CONSUMPTION

6.15 CSH Credit Wat 1 Indoor Water Use. This credit is awarded based on the predicted average household water consumption. Through use of efficient appliances and the fittings the lower the predicted average consumption, the more credits are awarded.

6.16 The design team have confirmed that the internal water consumption will be less than or equal to 105 l/p/d. This is a Mandatory requirement for CSH level 4.

6.17 The reduction of internal water will be obtained through the specification of low water consuming sanitary fitting, such as duel flush WC's (2l/4l), aerating taps 3.3l/min, showers 6l/min with intrinsic flow restrictors, and small baths (100l). In addition White

Goods, will also be water conserving models; low water usage dish washers and, washing machines.

6.18 All CSH developments are require to achieve the Mandatory element of SUR 1 Management Surface Water Run-Off from Developments. The FRA confirms that the total impermeable area of the site is to decrease from 8527m² to 8138m² and as such this requirement is meet.

7.0 DRAINAGE DESIGN STATEMENT

7.1 WSP undertook a Drainage Design Statement (DDS) for the redevelopment of the Netley School Site. The DDS will also support the requirements on the S106 agreement

CONTROLLING RUN OFF & FLOODING

7.2 WSP consulted with the Environment Agency (EA) to agree the flow restriction criteria, based upon achieving an overall reduction of run-off from the existing school development, including consideration of an increase in predicted rainfall as consequence of Climate Change.

7.3 The mechanism for the control of surface water run-off is two-fold, comprising of Green Roof construction to capture and slow the progress of water from the roof catchment, and a traditional buried tank incorporating an appropriately sized flow control device.

7.4 In addition to the mitigation measures established to control the run-off of surface water, the proposed development incorporates areas of planted soft landscaping to further reduce the catchment area contributing directly to the positive drainage system

7.5 The site is therefore considered sustainable in terms of flood risk and complaint with the criteria set out by the Environment Agency.

8.0 CONCLUSION

8.1 This Water Management Plan has outlined the package of internal and external water reduction measures, and flood reduction strategies to be delivered for The Netley Project. The identified measures respond to the S106 obligations, covering the areas of water efficiency, water reduction, flood reduction and mitigation BREEAM and CSH performance requirements, and water performance in post occupancy.

8.2 The Water Management measures, when taken together are expected to fulfil the requirement of the Section 106 obligations for Water Management.