

DRAINAGE STATEMENT REPORT

Project No. 1640
Revision: P01
Date: June 2017

STEPHENSON HOUSE REVELOPMENT

Lazari Properties 2 Ltd



Consulting Engineers

Company Registration No. 2570207
Telephone: 0161 681 7070
Facsimile: 0161 219 1968
www.glppartnership.co.uk

GLP Consulting Engineers Ltd
Unit 5 Howarth Court
Gateway Crescent
Oldham Broadway Business Park
Chadderton
Greater Manchester
OL9 9XB

COPYRIGHT ©

All rights reserved. No part of the content of this document may be reproduced, published, transmitted or adapted in any form or by any means without the written permission of the GLP Consulting Engineers Ltd

GLP QA SYSTEM

Prepared By:



Patrick Nicholls MEng(Hons)(Oxon) CEng MIMechE
Principal Mechanical Engineer

Authorisation By:



Verification By:
Philip Kinsella LCEA 6168
Accredited CIBSE Low Carbon Consultant and Low Carbon Energy Assessor, AC Inspector and ESOS Lead Assessor.

CONTENTS

- 1.0 Introduction
- 2.0 Site Description
- 3.0 Foul Drainage System Design Intent
- 4.0 Surface Water Drainage Design Intent - SuDS Report and Conclusions

1.0 Introduction

This report has been prepared on behalf of Lazari Properties 2 Ltd during the RIBA Stage 3 design of the Stephenson House redevelopment project in central London. Its purpose is to provide an outline demonstration of the design intent for the foul drainage systems for the building as required by Camden as a planning requirement.

This report is to be read in conjunction with the SuDS assessment of the site provisions for sustainable drainage solutions carried out by UK Floor Risk, and will provide comment on the methods and routeing of foul drainage discharge pipework.

2.0 Site Description

The development is a refurbishment and extension to the existing Stephenson House building located at 75 Hampstead Road, Kings Cross, London NW1 2PL. The development incorporates refurbishment, expansion and extension of the current building to increase the lettable floor area and provide a better quality of environment for tenants for office areas as well as providing some retail and residential accommodation.

Stephenson House is located in the London Borough of Camden a short walk from Euston Station on the junction of Hampstead Road and Drummond Street. There are adjacent buildings to the West and North of the site adjoining the perimeter of Stephenson House with the streets and pavement bounding the South and East sides.

The building currently comprises 9710m² (NIA) of office space and it is intended that this be increased to 15076m² (NIA) to provide greater lettable area to tenants. It is intended that the additional space is created through development and extension of the existing second to fifth floors on the Drummond Street side of the building, subject to a right to light agreement with the tenants of an adjacent building, and extension of the second and third floors adjoining adjacent buildings at the rear of the property. A new atrium will be constructed from basement up to fourth floor level open to the surrounding offices, with the exception of the fourth floor which is enclosed for fire protection purposes.

Plant space will be in the basement and on the roof of the building, with PV cells being located on the roof area above the seventh floor residential area on the Hampstead Road wing of the building.

GLP Consulting Engineers Ltd have been commissioned by Lazari Properties 2 Ltd to provide Mechanical, Public Health and Electrical engineering design for the project.

3.0 Foul Drainage System Design Intent

The design intent of collection and routing for the foul drainage for the building is as follows:

- Foul Drainage from the proposed office cores shall be collected via gravity at high-level within the lower ground floor area and routed to the existing foul water outfall onto Hampstead Road.
- Foul drainage from the proposed residential apartments shall be collected at high-level ground floor then routed vertically through the building to the existing foul water outfall.
- Foul drainage from the proposed street facing (A1) retail units shall be collected at high-level within the lower ground floor area and routed around the perimeter of the site to the existing foul water outfall.
- Any Plant rooms or sanitary appliances situated directly on the Lower Ground Floor slab shall be pumped via localised foul water pump sets to the series of high level foul water header drains travelling transversely across the basement soffit.

*The existing 150mm foul water outfall is subject to a condition survey and will require a detailed assessment with regards to available capacity.

A site asset location map is in the process of being obtained from Thames Water and a CCTV survey shall be carried out to confirm the levels of the existing drainage services to the building.

4.0 Service Water Drainage Design Intent - SuDS Report and Conclusions

The design intent of the Surface Water collected in gutters and rainwater pipes in the developed property will be to discharge to drain externally to the Thames Water sewer network via a sustainable system comprising attenuation tanks in the property basement in accordance with SuDS scheme requirements.

A Sustainable Drainage Systems (SuDS) analysis and report has been carried out by specialists UK Flood Risk, with the report and appendices being included separately. The surface water drainage assessment is undertaken to demonstrate that the surface water runoff from the proposed development can be effectively managed without increasing the flood risk elsewhere in the vicinity of the development.

The proposed attenuation measure determined from the SuDS analysis is a storage tank or tanks of 135m³ total volume due to the impermeable nature of the site and the desire to avoid a blue roof solution. It is initially proposed to locate two attenuation tanks, each of 67.5m³ volume, in the basement level of the building. A provisional space for these tanks has been set out in the basement adjoining the existing tank room for discharge to the existing wet well and surface water pumps to the combined drainage outfall on Hampstead Road. The drainage will be developed as the internal design of the building progresses.