



Sion Court, Twickenham, TW1

Sustainability Statement

Job No: 5656

Issued: June, 2024

Issue No: 1

Contents

1.0	Introduction.....	3
2.0	Project Summary.....	4
3.0	Policy Requirements and Drivers.....	5
4.0	Local Environment, Biodiversity, Heritage.....	6
5.0	Passive Design Measures.....	7
6.0	Potable Water Usage.....	8
7.0	Surface Water and Flooding.....	9
8.0	Transport.....	10
9.0	Sustainable Construction.....	11
10.0	Conclusions.....	14

Document Prepared By:

Document Authorised By:

Sam Westover

Jim Westover

Dated:

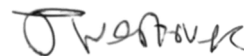
Dated:

10.06.24

10.06.24

Signed:

Signed:

This report has been prepared for the exclusive use of the commissioning party and may not be reproduced without prior written permission from T16 Design.

All work has been carried out within the terms of the brief using all reasonable skill, care, and diligence. No liability is accepted by T16 Design for the accuracy of data or opinions provided by others in the preparation of this report, or for any use of this report other than for the purpose for which it was produced.

1.0 Introduction

1.1 T16 This Sustainability Statement has been prepared in relation to planning application for the proposed redevelopment of the site at Sion Court, Twickenham, TW1 3DD.

1.2 The report takes an overarching strategy for improvements and measures to be adopted in order to reduce the environmental impact of the scheme,

1.3 It looks primarily at measures other than those which reduce Energy Consumption and CO₂ emissions. These are:

- Passive Design Measures
- Potable Water Usage
- Surface Water and Flooding
- Transport
- Sustainable Construction

2.0 Project Summary

- 2.1 The proposal site is at Sion Court, Twickenham, TW1.
- 2.2 The site currently consists of an existing vacant residential flat and 19 lock-up garages.
- 2.3 The proposal involves the demolition of the existing buildings and the erection of a new block containing five dwellings.
- 2.4 The site location is shown below.



Site location

3.0 Policy Requirements and Drivers

3.1 The relevant planning policy documents for this site, relating to sustainability are:

- The London Plan (2021)
- Richmond Local Plan

3.1.1 Policy LP8 - Amenity and Living Conditions

3.1.2 Policy LP10 - Local environmental impacts, pollution and Land Contamination

3.1.3 Policy LP15 - Biodiversity

3.1.4 Policy LP17 - Green Roof and Walls

3.1.5 Policy LP21 - Flood Risk and Sustainable Drainage

3.1.6 Policy LP24 - Waste Management

- National Planning Policy Framework (NPPF 2023)

3.2 In light of these policy requirements and through the developer and design team's commitment to reducing the impact of the development on the environment, this report sets out some of the measures that will be adopted to meet the policy targets

4.0 Local Environment, Biodiversity, Heritage

- 4.1 The site is located in Twickenham Riverside Conservation Area which is of special architectural and historic interest.
- 4.2 A Heritage Statement has been undertaken by HCUK Group limited to assess the overall effects on the site on the surrounding area.
- 4.3 The report concludes that the removal of redundant garages and first floor flat-roofed residential building not cause an negative effect on the surrounding listed buildings or conservation area.
- 4.4 The proposal site will enhance character and appearance of the Twickenham Riverside Conservation Area as there will be improved landscaping and amenity
- 4.5 A daylight and sunlight assessment has been undertaken by Right to Light Consulting which shows that the proposal on site will not effect the daylight and sunlight of the neighbouring dwellings.
- 4.6 An Ecological Appraisal undertaken by AESG recommends integrating bird boxes in to the site.
- 4.7 AESG has also undertaken a BNG assessment which shows that the proposal will increase biodiversity on site by over 50% therefore compliant with local plan requirements.
- 4.8 It can be concluded that the proposal site improves and enhances the biodiversity and heritage of the local area.

5.0 Passive Design Measures

- 5.1 The design team will incorporate features to reduce the environmental impact of the scheme wherever possible.
- 5.2 Passive design is a method of using the features of the building to reduce the energy consumption and environmental impact, without the use of mechanical or electrical plant.
- 5.3 These techniques include solar orientation, natural ventilation, dual aspect design, thermal mass, air tightness, and fenestration design.
- 5.4 Some of these techniques are not possible on all sites, but the design team for this project have endeavoured to include them where feasible.
- 5.5 A building with high thermal mass will take longer to heat up and longer to cool down, which generally has the effect of reducing the energy required to keep it at an acceptable temperature.
- 5.6 The Daylight and sunlight assessment undertaken by Right To Light Consulting shows that the daylight and sunlight within the proposed units exceed the recommendations set out in BS EN 17037: 2018+A1:2021)
- 5.7 All five units have glazing on opposite orientations providing passive effective ventilation.
- 5.8 All units have private amenity in the form of gardens or with some unit gardens and balconies together.
- 5.9 The existing communal amenity space will be enlarged and landscaped.

6.0 Potable Water Usage

- 6.1 It is a policy requirement that new residential dwellings are expected to have internal water usage of less than the 105l/person/day in accordance with Building Regulations Part G.
- 6.2 This is calculated using the Part G Water Usage tool.. This has been used at this early stage to give a guide to the potential internal water usage.
- 6.3 Please note that the overall usage is per person and so is not affected by the number of fittings installed, provided they are all the same.
- 6.4 The assumptions used for the calculations are.
- Basin Taps and Kitchen taps: 3l/min at 3bar
 - Showers: 8l/min at 3bar
 - Baths: 145l to overflow
 - WCs: Dual flush - 4/2.6l
 - No Waste Disposal
 - No Water Softener
 - Washing Machine: Default value (8.17l/kg load)
 - Dishwasher: Default value (1.25l/place setting)

Total Predicted Usage 94.7l/person/day

7.0 Surface Water and Flooding

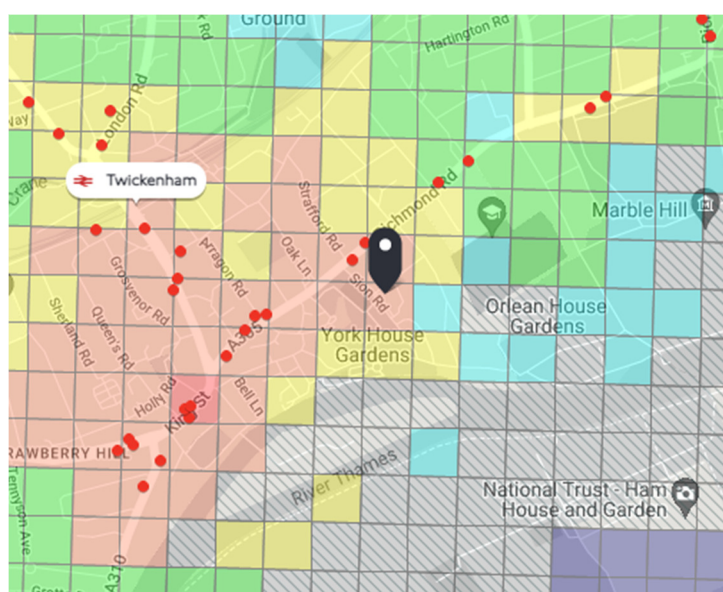
- 7.1 New developments should seek to mitigate against the future effects of climate change and so far as possible, reduce water runoff from the site and buildings to alleviate the problems of flooding.
- 7.2 The site is located within the Environment Agency Flood Risk Zone One, which means it is at low risk of flooding from all sources as show below.
- 7.3 The site does also not appear to be located within a critical drainage problem area.
- 7.4 Details of proposed flood resilience measures are contained in the Design and Access Statement.



Site Location

8.0 Transport

- 8.1 Transport arrangements are a key consideration for any new development. In London. The accessibility of public transport to a site is of high importance to both developers and end-users.
- 8.2 This can be assessed using the PTAL (Public Transport Access Levels) system. This site has a rating of 5, where 0 is the worst score and 6b is the best.
- 8.3 The site is a short walk away from Twickenham and St Margerats rail stations and a close distance to the route different daytime bus routes.
- 8.4 Secure and accessible cycle storage is to be provided to help encourage the future occupants to make more journeys by bicycle. A total of 28 Cycle spaces will be provided.
- 8.5 A single disabled parking space will be provided and allocated to Unit 1 with a electric bollard in place to control access.
- 8.6 The remaining 4 residential units will not have car parking spaces and a permit-free agreement to in place to prevent additional parking on the street.
- 8.7 All refuse collection for the proposed units will continue to be undertaken as per the exiting scenario for the surrounding flats.
- 8.8 It is concluded in the transport statement provide by Caneparo Associates most journeys from the site will be undertaken using public transport, walking and cycling.



Site PTAL Rating.

9.0 Sustainable Construction

- 9.1 It is clearly important that a building should be designed to reduce its environmental impact so far as reasonably practical and the measures proposed for doing this are detailed in this report and the accompanying Energy Statement.
- 9.2 Whilst the specific measures to be taken to ensure this is also mitigated will be the responsibility of the contractor once building work commences, the section sets out suitable measures that should be considered and adopted where appropriate):
- 9.3 **Site Waste Management:**
- The build will be operated under a Site Waste Management Plan which will identify the key sources of construction waste, methods for diverting this waste from landfill, identify those responsible for doing so and monitor performance.
 - There are numerous tools available for doing this, including online facilities such as BRE's SMARTWaste system.
 - This allows the contractor to log all waste-related activities and report on performance at all stages of the build.
 - It also allows monitoring and reporting of energy and water use on site (see "Consumption Monitoring", below) and analysis of the carbon impact for transportation and material usage.
 - Although Site Waste Management Plans are no longer a legal requirement, they offer significant environmental benefits and also cost savings, by encouraging waste reduction across the construction team.

9.0 Sustainable Construction

9.4 Pollution

- The contractor will have in place policies on site to minimize air and water pollution from site-based activities.
- Air and water pollution on site can have a detrimental impact on the environment and on the health of local residents
- Examples of the clauses that such policies should contain are:
 - 9.4.1 All surface water must discharge into a surface water drain.
 - 9.4.2 All foul water must discharge into the foul water drain.
 - 9.4.3 All oil and diesel drums must be stored on an impervious base with oil-tight bund with no drainage outlet. All drill pipes, fill pipes and sight gauges must also be stored on this bund.
 - 9.4.4 Leaking or empty oil drums must be removed from site and disposed of via a licensed waste disposal contractor.
 - 9.4.5 A stand pipe and hose is to be made available at all times on site to damp down arising dust from the demolition process. Particular attention must be paid to damping down procedures during periods of dry and hot weather.
 - 9.4.6 All skips must be covered with a suitable cover i.e. tarpaulin or plastic dust sheets.
 - 9.4.7 Any lorries removing waste from site must be suitably covered prior to leaving site.
 - 9.4.8 A wheel wash will be provided where practical.

9.0 Sustainable Construction

9.5 Consumption Monitoring

- In line with the ideals of the Site Waste Management Plan the developer will monitor resources consumption on site in line with industry KPI benchmarks.
- Electricity and water usage will be monitored on site and targets set.
- The results of the meter readings will then be compared to the set benchmark targets using industry standard KPIs so that feedback can be given to the site staff.
- This will have the effect of encouraging responsible resource usage and consumption reduction where possible.

10.0 Conclusions

- 10.1 The sustainability strategy for the development has been developed with the design team to comply with the relevant environmental policies of Richmond Council.
- 10.2 Measures to be included within the design cover areas such as reductions in potable water use, resource efficiency and pollution reduction both through the build process and post-occupation,
- 10.3 The proposed development at Sion Court, honours, and aims to go beyond, the intentions of the policies set out by Richmond Council in order to provide a well-designed and built development which limits its impacts on the environment both during its construction and beyond.



T16 Design Ltd.

T: 01206 572452

E: info@t16design.com

W: www.t16design.com

© 2024