



TJ SIMMONS & CO. LIMITED

**THE WAREHOUSE, 1A ST LEONARD'S ROAD, EAST SHEEN, LONDON,
SW14 7LY**

FLOOD RISK REPORT

FOR

TIM SIMMONS



August 2016

Our Ref: HLEF45348/001R

RPS Health, Safety & Environment
35 New Bridge Street
London
EC4V 6BW

Tel: 020 7280 3240
Email: rpslon@rpsgroup.com

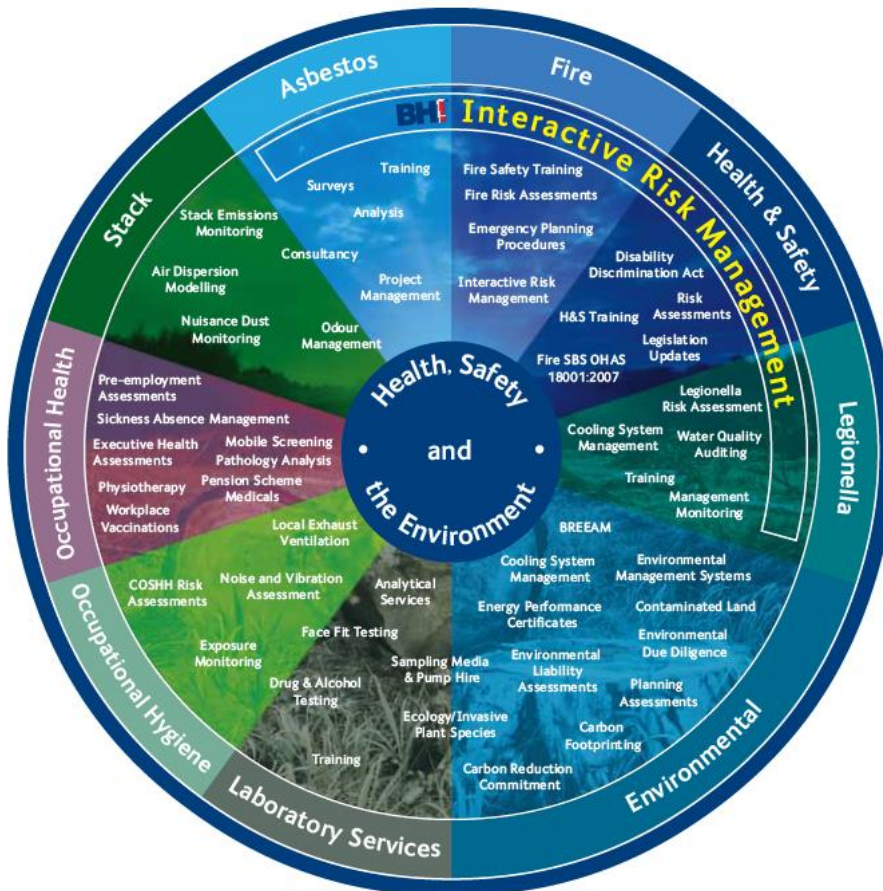


Report Status:	Final	
Project Reference:	HLEF45348	
	Name:	Signature:
Report Author:	James Dunn	<i>J. Dunn</i>
Technical Reviewer:	Alison Cadge	<i>A. Cadge</i>
Date:	22 nd August 2016	

This report has been prepared in the RPS Group Quality Management System to British Standard EN ISO 9001:2008

RPS Health, Safety & Environment is part of the RPS Group Plc with around 5,000 staff based at over 85 offices located throughout the UK, Ireland and the Netherlands and in the USA, Canada, the Russian Federation, Australia, Malaysia, Singapore and Abu Dhabi. RPS offers an unparalleled range of commercially focused services relating to property and land due-diligence, site development and geo-environmental investigations (including liability reviews, planning feasibility, EIAs and flood risk, energy & sustainability assessments).

RPS Health, Safety & Environment (London office) is certified to Environmental Management Standard ISO 14001.





CONTENTS

	PAGE
EXECUTIVE SUMMARY	4
1 INTRODUCTION	5
2 SITE DESCRIPTION AND SETTING	6
3 PROPOSED DEVELOPMENT.....	7
4 CONSULTATIONS & REGULATORY INFORMATION	8
5 ASSESSMENT OF FLOOD RISK	10
6 CONCLUSIONS & RECOMMENDATIONS	13

APPENDIX A

Figures

APPENDIX B

Development Plans

APPENDIX C

General Notes

EXECUTIVE SUMMARY

Report Summary:

This Flood Risk Report has been prepared in relation to the Permitted Development application for the subject site. The site currently comprises a two storey commercial building. The proposed works comprise the conversion of both floors of the building to residential use.

The assessment considers the risk to the site from key sources of flooding, including fluvial and tidal sources, surface water, sewer surcharging, groundwater and man-made features such as canals and reservoirs. The level of flood risk has been assessed based on available data provided by the Environment Agency, the Local Authority and the Water Authority.

Overall the site is considered to be at a low risk of flooding from all sources assessed. The development is therefore considered to be safe from a flood risk perspective.

In addition, given the nature of the proposed works (comprising conversion of an existing building only) there will be no increase in flood risk as a result of the development proposal.

No further assessment or mitigation is considered necessary in relation to flood risk issues.

1 INTRODUCTION

RPS was commissioned to prepare a Flood Risk report in relation to the proposed conversion of all floors of *The Warehouse, 1A St. Leonard's Road, East Sheen, London, SW14 7LY* to residential use.

The aim of this report is to provide an assessment of flood risk to the property, identify any impacts on flood risk resulting from the proposed works, and to provide recommendations for reducing this risk (where applicable). The report has been produced with reference to the guidance detailed in the National Planning Policy Framework (NPPF).

The following has been undertaken as part of the assessment:

- Assessment of the topographical, hydrological and hydrogeological setting through review of information sourced from the British Geological Survey, the Environment Agency (EA) and the Ordnance Survey;
- Review of readily available (online) flood risk mapping provided by the EA;
- Review of the Strategic Flood Risk Assessment (SFRA) produced by the Local Authority outlining flood risk from various sources within the borough; and
- Consultation with the Water Authority regarding known records of sewer flooding at the property.

Given that the proposal is for a change of use of the existing property, there is no requirement under the NPPF to apply the Sequential Test or Exception Test in relation to this application.

2 SITE DESCRIPTION AND SETTING

2.1 Site Description

The site is located in East Sheen at national grid reference TQ 20388 75594. It is within a predominantly residential setting. A site location plan is provided in Figure 1.

The site occupies an area of approximately 0.02 hectares. It is currently occupied by a warehouse (B8) with ancillary office space on the first floor. There are hardstanding concrete and pavement areas around the building.

Pedestrian and vehicular access is through a passageway off St. Leonard's Road to the north of the site.

2.2 Hydrological Setting

The nearest main watercourse is the River Thames, approximately 540m north of the site.

There is a culverted watercourse approximately 250m northwest of the site.

2.3 Hydrogeological Setting

According to BGS mapping, the site is underlain by the Kempton Park Gravel Formation of sand and gravel. This is underlain by London Clay.

The superficial deposits are classified as a 'Secondary A' aquifer on BGS groundwater maps. These aquifers are typically capable of supporting water supplies at a local scale rather than a strategic scale, and in some cases form an important source of base flow to rivers. The London Clay Formation which underlies this is an unproductive stratum that has a low permeability and negligible significance for water supply or river base flow.

3 PROPOSED DEVELOPMENT

3.1 Description of Development

The Permitted Development application is for the conversion of both floors of the development to form a total of six residential units.

Main pedestrian access to the site will remain to the north through a passageway off St. Leonards Road. There will be three access points on the ground floor of the building for each residential unit as well as an access point leading to the units on the upper floor.

Development plans are provided in Appendix B.

4 CONSULTATIONS & REGULATORY INFORMATION

4.1 Environment Agency

The EA flood map (available online) indicates that the site is located within Flood Zone 1. The annual probability of flooding from fluvial / tidal sources is classified as less than 1 in 1000. The site is approximately 80m south of the floodplain associated with the River Thames.

The EA Flood Map is provided in Figure 2.

The EA Risk of Flooding from Surface Water map (available online) indicates that the site itself is at 'very low' risk from surface water flooding which means the site has an annual probability of flooding of less than 1 in 1000. The hardstanding areas surrounding the site are at 'low' risk from surface water flooding. This corresponds with an annual probability of flooding that is between 1 in 1000 and 1 in 100.

EA mapping also indicates that the site is not located within an area potentially at risk from reservoir flooding.

4.2 Local Authority

The London Borough of Richmond Upon Thames SFRA was published in March 2016. It provides an overview of flood risk from various sources within the Borough. A Surface Water Management Plan (SWMP) was also produced for the Borough in 2011, providing an outline of the preferred surface water management strategy for the Borough. Information of relevance to these assessments is summarised below:

- A considerable portion of the urban area of the Borough comprises low lying ground adjacent to the river systems, which could potentially be affected by flooding.
- The likelihood of a rapid river level rise within the River Thames, resulting in the rapid inundation of urban areas within the Borough posing a risk to life, is considered to be negligible.
- There are no recorded instances of fluvial flooding within proximity of the site.
- There have been 5 or less recorded instances of sewer flooding in the 'SW14 7' postcode area.
- There is a culverted watercourse approximately 250m northwest of the site.
- The site is in an area where there is potential for groundwater flooding to occur at the surface.
- There have been no recorded instances of groundwater flooding within the vicinity of the site.

- The nearest recorded groundwater flooding event occurred approximately 380m southwest of the site.
- Modelling suggests that the site would not experience surface water flooding for a 1 in 100 year flood.
- The nearest recorded surface water flooding incident is approximately 300m to the south of the site.

4.3 Water Authority

Thames Water have confirmed that there have been no incidents of flooding in vicinity of the site as a result of surcharging public sewers.

5 ASSESSMENT OF FLOOD RISK

5.1 Background

The following assessment is based on the data presented in the preceding sections of this report. It should be noted that flooding can occur at any location and cannot always be predicted. However, this report aims to identify any specific or known risks relating to the subject property, based on available information sources.

5.2 Fluvial / Tidal Flooding

Fluvial and tidal flooding refers to flooding from surface watercourses and their tributaries, estuaries and the sea. EA mapping indicates that the site is located within Flood Zone 1, whereby the annual probability of fluvial or tidal flooding is classified as less than 1 in 1000.

According to the London Borough of Richmond SWMP, a culverted watercourse is located approximately 250m northwest of the site. However given its culverted nature and distance from the site, this watercourse is not considered to represent a risk of flooding to the subject site.

No historical flood events from fluvial or tidal sources have been recorded by the EA in close proximity to the site.

The Planning Practice Guidance (PPG) details the suitability of different land uses within each flood zone. The proposed land use is classified as 'more vulnerable' and such uses are generally considered compatible with Flood Zone 1.

Overall, the risk associated with flooding from fluvial or tidal sources is considered to be low.

5.3 Flooding from sewers

Sewer flooding can occur during periods of heavy rainfall when a sewer becomes blocked or is of inadequate capacity.

The SFRA indicates, there have been 5 or less recorded instances of sewer flooding in the 'SW14 7' postcode area. Thames Water have confirmed that they hold no records of sewer flooding for the site itself.

Overall, the risk associated with flooding from sewers is considered to be low.

5.4 Surface water (pluvial) flooding

This can occur during intense rainfall events, when water cannot soak into the ground or enter drainage systems. Overland flow is likely to follow the local topography, ponding in valleys or topographical depressions.

The SFRA flood map for surface water shows that the site would not experience any flooding as a result of surface water runoff for a 1 in 100 year flood.

Environment Agency mapping indicates that the property itself is at 'very low' risk from surface water flooding which means the site has an annual probability of flooding of less than 1 in 1000. The hardstanding areas surrounding the site are at 'low' risk from surface water flooding. This corresponds with an annual probability of flooding that is between 1 in 1000 and 1 in 100.

Overall, the risk associated with surface water flooding is considered to be low.

5.5 Groundwater flooding

This can occur in low-lying areas when groundwater levels rise above surface levels, or within underground structures. BGS mapping indicates that the site is underlain by permeable superficial deposits of the Kempton Park Gravel Formation. This is underlain by London Clay.

There have been no recorded incidents of groundwater flooding occurring within proximity of the site. As the development does not include any basement levels, there is a reduced likelihood of groundwater flooding.

Overall, the risk associated with groundwater flooding is considered to be low.

5.6 Other Sources

Other potential sources of flooding include man-made structures such as reservoirs and canals. No man-made water features are recorded within 1km of the subject site and EA mapping shows that the site is not within an area considered to be at risk from reservoir flooding.

As with any urban location, there is the risk of a break in a water main causing localised flooding at the site. However, the risk at this location is no greater than at any other location served by water mains.

Overall the risk associated with flooding from other sources (such as reservoirs and canals) is considered to be low.

5.7 Impact of Development on Flood Risk

Given that the proposed works comprise the conversion of the existing property only, with no external alterations to the building footprint or drainage system, there will be no off-site increase in flood risk as a result of the proposed works. It is therefore considered neither practical nor sustainable to include SuDS in the proposed scheme.

6 CONCLUSIONS & RECOMMENDATIONS

6.1 Conclusions

This assessment has considered the potential risks to the application site associated with flooding from fluvial and tidal sources, sewer surcharging, surface water (pluvial) flooding, groundwater flooding and flooding from other (man-made) sources. Overall, on the basis of information reviewed by RPS, the subject site is not considered to be at a significant risk of flooding from any of the sources assessed.

The development is considered to be safe from a flood risk perspective, and will not result in an increase in flood risk off-site.

6.2 Recommendations

No further assessment or mitigation is considered necessary in relation to flood risk for the Permitted Development application.

APPENDIX A

Figures



Figure 1: Site Location Plan

Map Date: Current

Scale: Not to scale

RPS
35 New Bridge Street
London
EC4V 6BW

☎ 020-7280-3240

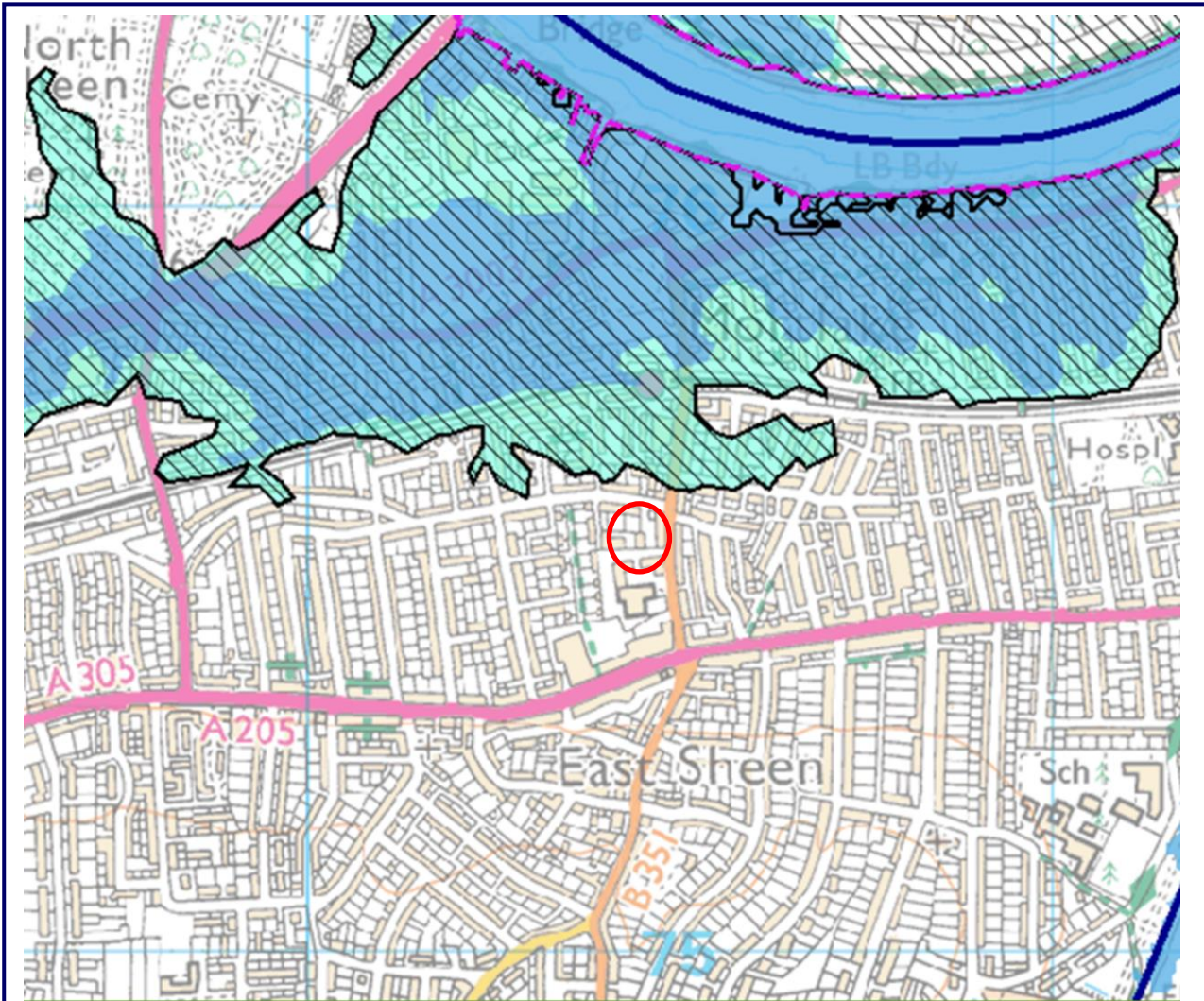


Figure 2: Environment Agency Flood Map

Map Date: Current

Scale: Not to scale

RPS
35 New Bridge Street
London
EC4V 6BW

☎ 020-7280-3240
🌐 www.rpsgroup.com

APPENDIX B

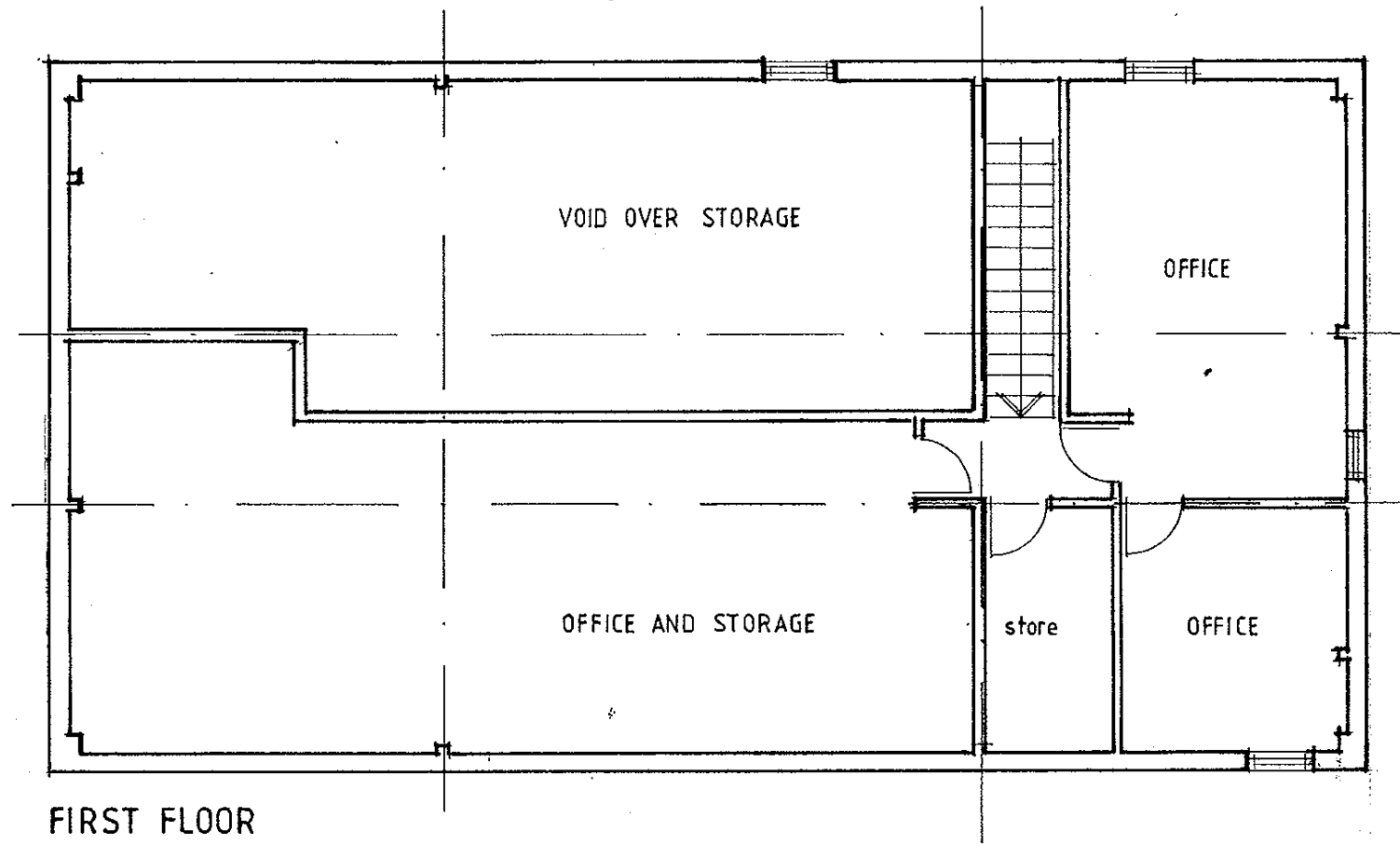
Development Plans

NOTES

- The Copyright of this drawing is the property of Create Design Ltd. and must not be copied or otherwise reproduced without written consent.
- The contractor is responsible for checking dimensions, tolerances and references. Any discrepancy to be verified with the Architect before proceeding with the works.
- Do not scale drawing. Figured dimensions to be worked to in all cases.
- All work and materials to be in accordance with current applicable Statutory Legislation and to comply with all relevant Codes of Practice and British Standards.

ALL CURRENT DRAWINGS AND SPECIFICATIONS FOR THE PROJECT MUST BE READ IN CONJUNCTION WITH DESIGNER'S HAZARD AND ENVIRONMENTAL ASSESSMENT RECORD.

FOR COMMENT ONLY



date	rev	revision/author/checker

scale bar in mm
 @ A3

client	TJ SIMMONS & CO LTD.
project	1A ST LEONARDS RD LONDON SW14 7LY
drawing	EXISTING FIRST FLOOR

drawing no	390_B(20)P01	rev	-
created by	PS	checked	MW
scale @ A3	1:100	date created	06.07.16

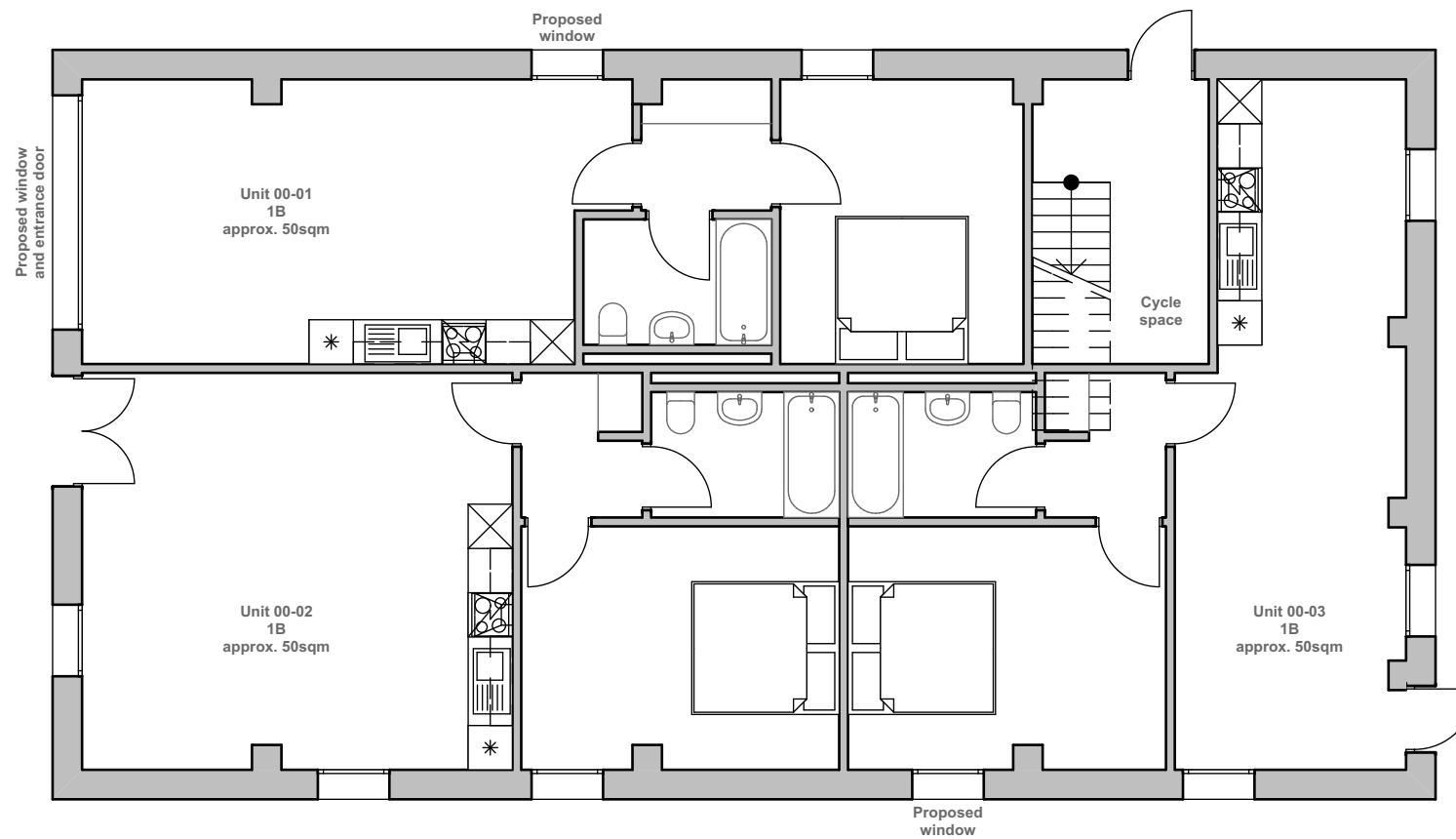
CREATE
 DESIGN + ARCHITECTURE
 Wigglesworth House,
 69 Southwark Bridge Road, London SE1 9RH
 T: +44 (0)20 7021 0267
 www.createandesign.org

NOTES

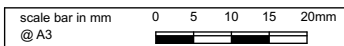
- The Copyright of this drawing is the property of Create Design Ltd. and must not be copied or otherwise reproduced without written consent.
- The contractor is responsible for checking dimensions, tolerances and references. Any discrepancy to be verified with the Architect before proceeding with the works.
- Do not scale drawing. Figured dimensions to be worked to in all cases.
- All work and materials to be in accordance with current applicable Statutory Legislation and to comply with all relevant Codes of Practice and British Standards.

ALL CURRENT DRAWINGS AND SPECIFICATIONS FOR THE PROJECT MUST BE READ IN CONJUNCTION WITH DESIGNER'S HAZARD AND ENVIRONMENTAL ASSESSMENT RECORD.

FOR COMMENT ONLY



date	rev	revision/author/checker



client
TJ SIMMONS & CO LTD.

project
**1A ST LEONARDS RD
 LONDON SW14 7LY**

drawing
PROPOSED GROUND FLOOR

drawing no	rev
390_P(20)P00	-
created by	checked
PS	MW
scale @ A3	date created
1:100	06.07.16

CREATE
 DESIGN + ARCHITECTURE

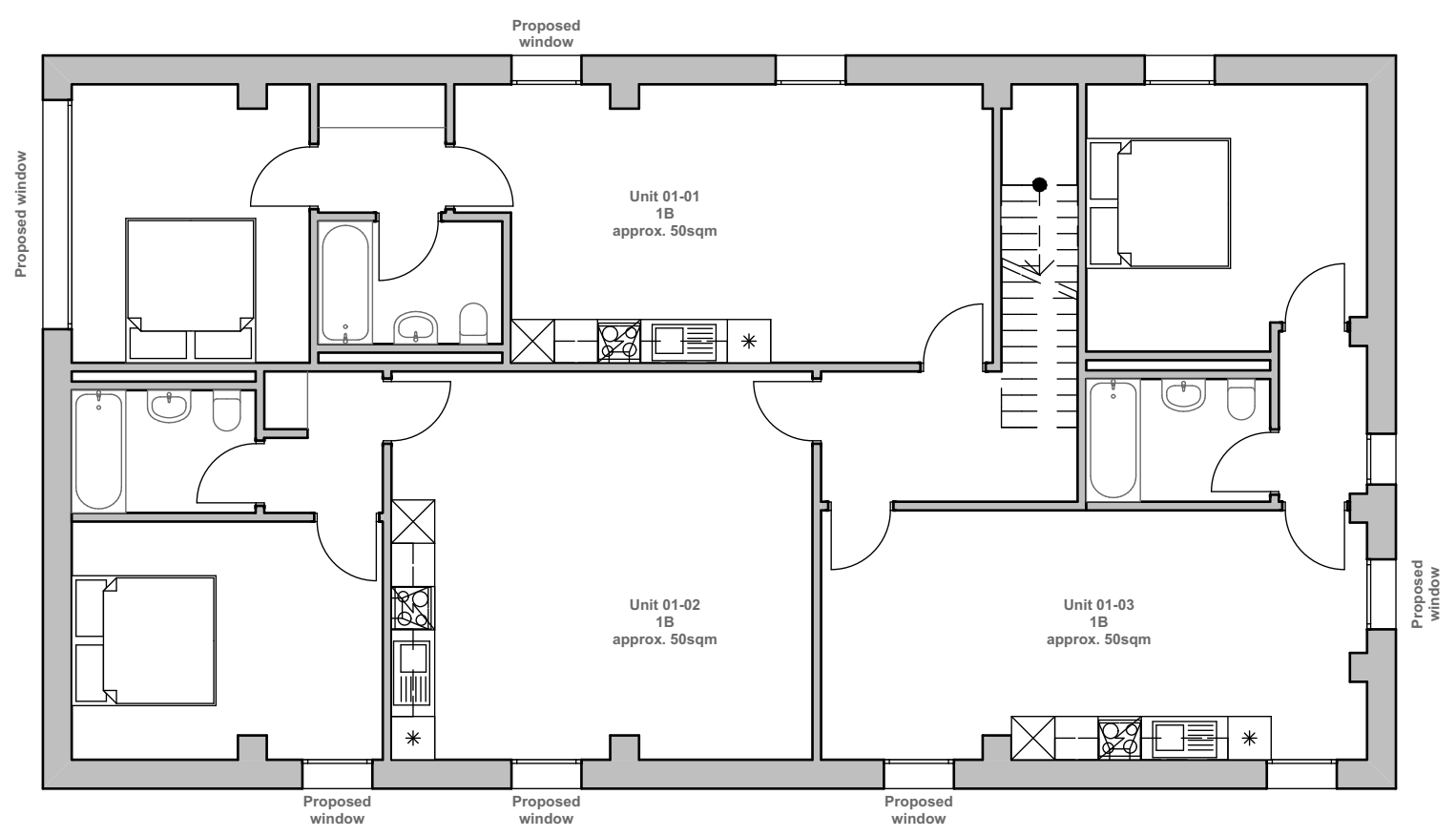
Wiggleworth House,
 69 Southwark Bridge Road, London SE1 9RH
 T: +44 (0)20 7021 0267
 www.createandesign.org

NOTES

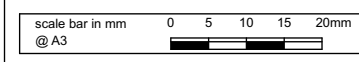
- The Copyright of this drawing is the property of Create Design Ltd. and must not be copied or otherwise reproduced without written consent.
- The contractor is responsible for checking dimensions, tolerances and references. Any discrepancy to be verified with the Architect before proceeding with the works.
- Do not scale drawing. Figured dimensions to be worked to in all cases.
- All work and materials to be in accordance with current applicable Statutory Legislation and to comply with all relevant Codes of Practice and British Standards.

ALL CURRENT DRAWINGS AND SPECIFICATIONS FOR THE PROJECT MUST BE READ IN CONJUNCTION WITH DESIGNER'S HAZARD AND ENVIRONMENTAL ASSESSMENT RECORD.

FOR COMMENT ONLY



date	rev	revision/author/checker



client
TJ SIMMONS & CO LTD.

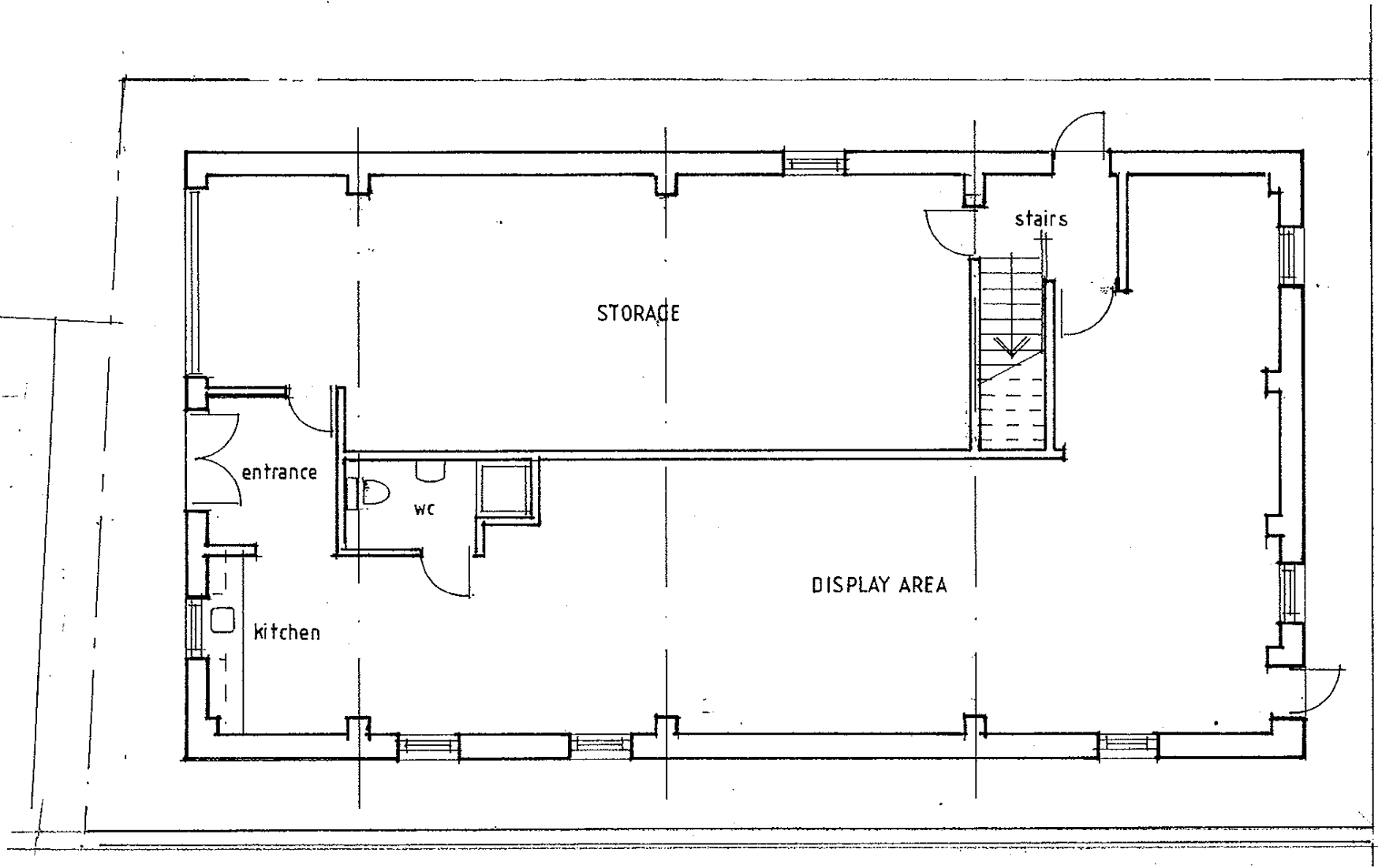
project
**1A ST LEONARDS RD
 LONDON SW14 7LY**

drawing
PROPOSED FIRST FLOOR

drawing no	rev
390_P(20)P01	-
created by	checked
PS	MW
scale @ A3	date created
1:100	06.07.16

CREATE
 DESIGN + ARCHITECTURE

Wiggleworth House,
 69 Southwark Bridge Road, London SE1 9EH
 T: +44 (0)20 7021 0267
 www.create-design.org



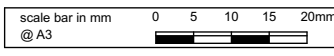
NOTES

- The Copyright of this drawing is the property of Create Design Ltd. and must not be copied or otherwise reproduced without written consent.
- The contractor is responsible for checking dimensions, tolerances and references. Any discrepancy to be verified with the Architect before proceeding with the works.
- Do not scale drawing. Figured dimensions to be worked to in all cases.
- All work and materials to be in accordance with current applicable Statutory Legislation and to comply with all relevant Codes of Practice and British Standards.

ALL CURRENT DRAWINGS AND SPECIFICATIONS FOR THE PROJECT MUST BE READ IN CONJUNCTION WITH DESIGNER'S HAZARD AND ENVIRONMENTAL ASSESSMENT RECORD.

FOR COMMENT ONLY

date	rev	revision/author/checker



client
TJ SIMMONS & CO LTD.

project
1A ST LEONARDS RD
LONDON SW14 7LY

drawing
EXISTING GROUND FLOOR

drawing no	390_B(20)P00	rev	-
created by	PS	checked	MW
scale @ A3	1:100	date created	06.07.16

CREATE
DESIGN + ARCHITECTURE

Wiggleworth House,
69 Southwark Bridge Road, London SE1 9EH
T: +44 (0)20 7021 0267
www.create-design.org

APPENDIX C

General Notes

RPS HEALTH, SAFETY & ENVIRONMENT

Flood Risk Desk Study Report

General Notes

The following notes should be read in conjunction with the report:

1. This report contains only that available factual data for the site, which was obtained from the sources, described in the text. These data were related to the site on the basis of the location information made available to RPS by the client.
2. The assessment of the site is based on information supplied by the client. Relevant information was also obtained from other sources.
3. The desk study information is not necessarily exhaustive and further information relevant to the site may be available from other sources.
4. The report reflects both the information provided to RPS in documents made available for review and the results of observations and consultations by RPS staff.
5. Where data have been supplied by the client or other sources, including that from previous site audits or investigations, it has been assumed that the information is correct but no warranty is given to that effect. While reasonable care and skill has been applied in review of this data no responsibility can be accepted by RPS for inaccuracies in the data supplied.
6. This report is prepared and written in the context of the proposals stated in the introduction to this report and its contents should not be used out of context. Furthermore new information, changed practices and changes in legislation may necessitate revised interpretation of the report after its original submission.
7. The copyright in the written materials shall remain the property of the RPS Company but with a royalty-free perpetual licence to the client deemed to be granted on payment in full to the RPS Company by the client of the outstanding amounts.
8. This report contains Environment Agency information © Environment Agency and database right.
9. The report is provided for sole use by the Client and is confidential to them, their professional advisors, no responsibility whatsoever for the contents of the report will be accepted to any person other than the Client. [Unless otherwise agreed]
10. These terms apply in addition to the RPS HSED "Standard Terms & Conditions" (or in addition to another written contract which may be in place instead thereof) unless specifically agreed in writing. (In the event of a conflict between these terms and the said Standard Terms & Conditions the said Standard Terms & Conditions shall prevail.) In the absence of such a written contract the Standard Terms & Conditions will apply.