SYNTEGRA CONSULTING

Lensbury Club, Broom Road, Teddington, TW11 9NU

Flood Risk Assessment & Drainage Strategy

Ref: 23-12283

QUALITY STANDARDS CONTROL

The signatories below verify that this document has been prepared in accordance with our quality control requirements. These procedures do not affect the content and views expressed by the originator.

This document must only be treated as a draft unless it is has been signed by the originators and approved by a director.

Revision	-
Date	13/03/2024
Prepared by	A. Norris
Checked by	A.Norris
Authorised by	A. Norris

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The conclusions and recommendations contained in this report are based upon information provided by others and upon the assumption that all relevant information has been provided by those parties from whom it has been requested and that such information is accurate. Information obtained by SC has not been independently verified by SC, unless otherwise stated in the report.

The methodology adopted and the sources of information used by SC in providing its services are outlined in this report. The work described in this report was undertaken in February 2024 and is based on the conditions encountered and the information available during the said period of time. The scope of this report and the services are accordingly factually limited by these circumstances.

Where assessments of works or costs identified in this report are made, such assessments are based upon the information available at the time and where appropriate are subject to further investigations or information which may become available.

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No allowance has been made for changes in prices or exchange rates or changes in any other conditions which may result in price fluctuations in the future. Where assessments of works or costs necessary to achieve compliance have been made, these are based upon measures which, in SC's experience, could normally be negotiated with the relevant authorities under present legislation and enforcement practice, assuming a pro-active and reasonable approach by site management.

Forecast cost estimates do not include such costs associated with any negotiations, appeals or other non-technical actions associated with the agreement on measures to meet the requirements of the authorities, nor are potential business loss and interruption costs considered that may be incurred as part of any technical measures.

CONTENTS

APPENDICES

1. Introduction

Syntegra have been appointed to undertake a Flood Risk Assessment (FRA) and Drainage Strategy in support of an planning application at Lensbury Club, Broom Road, Teddington, TW11 9NU.

The report provides information on the nature of flood risk at the site and follows Government guidance with regards to development and flood risk along with an assessment of existing drainage and potential for suds improvements.

Proposals contained or forming part of this report represent the design intent and may be subject to alteration or adjustment in completing the detailed design for this project. Where such adjustments are undertaken as part of the detailed design and are deemed a material derivation from the intent contained in this document, prior approval shall be obtained from the relevant authority in advance of commencing such works.

Where the proposed works to which this report refers are undertaken more than twelve months following the issue of this report, we shall reserve the right to re-validate the findings and conclusions by undertaking appropriate further investigations at no cost to Syntegra Consulting Ltd.

Reference Material

The Report has been prepared using the following documents for guidance:

- Sewers for Adoption
- Environment Agency Mapping
- CIRIA Suds Manual
- Local Authority Strategic Flood Risk Assessment (SFRA)
- British Geological society Mapping

This report has been prepared in accordance with the instructions of our client, for their sole and specific use.

Scope of report

The assessment has been undertaken in accordance with the standing advice and requirements of the Local Authority and Environment Agency for Flood Risk Assessments as outlined in the Communities and Local Governments Technical Guidance to the National Planning Policy Framework (NPPF).

The assessment has:

- Considered the procedures of the National Planning Policy Guidance and Local Authority Guidance.
- Considered the Cambridge SFRA
- Considered the site constraints
- Investigated all potential risks of current or future flooding to the site
- Considered the impact the development may have elsewhere with regards to flood risk

- Considered design proposals to mitigate any potential risk of flooding determined to be present
- Developed the drainage philosophy.
- Make recommendations as to how surface water drainage features are to be operated and maintained.

2. Existing Site and Topography

The proposed development site is located at Lensbury Resort, situated on Broom Road, Teddington.

The area of the site currently provides two tennis courts and three mini red tennis courts and is bound to the north by Broom Road; to the east by existing tennis courts; and to the south and west by St Mary's Teddington Lock Campus playing fields and car park. The location of the site is shown indicatively, in red, in **Figure 1** below.

Figure 1: Site Location Plan

3. Existing Drainage and Site Investigations

1. Existing Drainage

The site is currently developed and serviced by existing drainage systems.

2. Existing Watercourses

The nearest watercourse to the site is the River Thames to the north. The nearest flood zone is the floodplain associated with this watercourse.

4. Development Description

The proposed development involves the reconfiguration of two existing tennis courts. One tennis court will be removed, and the three mini-red tennis courts will be reconfigured and markings added to allow the courts to be used for pickleball. Two padel tennis courts are also proposed. Overall, the

proposals will result in additional court capacity for up to four people. The layout can be seen in Appendix A.

5. National Planning Policy Framework

In March 2012 the Department of Communities and Local Government published the National Planning Policy Framework document (NPPF 2021) which provides guidance on how flood risk should be assessed during the planning and development process. This document was recently revised again in December 2023. The main Framework is supplemented by a technical guidance document ("Planning Practice Guidance" - PPG) which advises specifically with respect to flooding. The most critical aspects are extracted below.

Section 173 of the NPPF 2023 advises that when determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment. Development should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:

a) within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;

b) the development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment;

c) it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;

d) any residual risk can be safely managed; and

e) safe access and escape routes are included where appropriate, as part of an agreed emergency plan.

Flood Zones (Table 1)

Flood Zone	Definition
Zone 1 Low Probability	Land having a less than 1 in 1,000 annual probability of river or sea flooding. (Shown as 'clear' on the Flood Map – all land outside Zones 2 and 3)
Zone 2 Medium Probability	Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or Land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding. (Land shown in light blue on the Flood Map)

Zone 3a High Probability	Land having a 1 in 100 or greater annual probability of river flooding; or Land having a 1 in 200 or greater annual probability of sea flooding. (Land shown in dark blue on the Flood Map)
Zone 3b The Functional Floodplain	**This zone comprises land where water has to flow or be stored in times of flood.** Local planning authorities should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. (Not separately distinguished from Zone 3a on the Flood Map)

Flood Risk Vulnerability Classification (Table 2)

As per Annex 3 of the NPPF 2023 the Flood vulnerability classification is set out as follows:

ESSENTIAL INFRASTRUCTURE

- Essential transport infrastructure (including mass evacuation routes) which has to cross the area at risk.
- Essential utility infrastructure which has to be located in a flood risk area for operational reasons, including infrastructure for electricity supply including generation, storage and distribution systems; and water treatment works that need to remain operational in times of flood.
- Wind turbines.
- Solar farms

HIGHLY VULNERABLE

- Police and ambulance stations; fire stations and command centres; telecommunications installations required to be operational during flooding.
- Emergency dispersal points.
- Basement dwellings.
- Caravans, mobile homes and park homes intended for permanent residential use.
- Installations requiring hazardous substances consent. (Where there is a demonstrable need to locate such installations for bulk storage of materials with port or other similar facilities, or such installations with energy infrastructure or carbon capture and storage installations, that require coastal or water-side locations, or need to be located in other high flood risk areas, in these instances the facilities should be classified as 'Essential Infrastructure'.)

MORE VULNERABLE

- Hospitals
- Residential institutions such as residential care homes, children's homes, social services homes, prisons and hostels.
- Buildings used for dwelling houses, student halls of residence, drinking establishments, nightclubs and hotels.
- Non–residential uses for health services, nurseries and educational establishments.
- Landfill* and sites used for waste management facilities for hazardous waste.
- Sites used for holiday or short-let caravans and camping, subject to a specific warning and evacuation plan.

LESS VULNERABLE

- Police, ambulance and fire stations which are not required to be operational during flooding.
- Buildings used for shops; financial, professional and other services; restaurants, cafes and hot food takeaways; offices; general industry, storage and distribution;

- non-residential institutions not included in the 'more vulnerable' class; and assembly and leisure.
- Land and buildings used for agriculture and forestry.
- Waste treatment (except landfill* and hazardous waste facilities).
- Minerals working and processing (except for sand and gravel working).
- Water treatment works which do not need to remain operational during times of flood.
- Sewage treatment works, if adequate measures to control pollution and manage sewage during flooding events are in place.
- Car parks.

WATER-COMPATIBLE DEVELOPMENT

- Flood control infrastructure.
- Water transmission infrastructure and pumping stations.
- Sewage transmission infrastructure and pumping stations.
- Sand and gravel working.
- Docks, marinas and wharves.
- Navigation facilities.
- Ministry of Defence installations.
- Ship building, repairing and dismantling, dockside fish processing and refrigeration and compatible activities requiring a waterside location.
- Water-based recreation (excluding sleeping accommodation).
- Lifeguard and coastguard stations.
- Amenity open space, nature conservation and biodiversity, outdoor sports and recreation and essential facilities such as changing rooms.
- Essential ancillary sleeping or residential accommodation for staff required by uses in this category, subject to a specific warning and evacuation plan.

Flood Zone and Flood Risk Vulnerability Compatibility (Table 3)

Flood Zones	Flood Risk Vulnerability Classification				
	Essential infrastructure	Highly vulnerable	More vulnerable	Less vulnerable	Water compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test required	✓	✓	✓
Zone 3a †	Exception Test required †	X	Exception Test required	✓	✓
Zone 3b *	Exception Test required *	X	X	X	✓*

Key:

✓ Development is appropriate

X Development should not be permitted.

Notes to table 3:

- This table does not show the application of the Sequential Test which should be applied first to guide development to Flood Zone 1, then Zone 2, and then Zone 3; nor does it reflect the need to avoid flood risk from sources other than rivers and the sea;
- The Sequential and Exception Tests do not need to be applied to minor developments and changes of use, except for a change of use to a caravan, camping or chalet site, or to a mobile home or park home site;
- Some developments may contain different elements of vulnerability and the highest vulnerability category should be used, unless the development is considered in its component parts.

- † In Flood Zone 3a essential infrastructure should be designed and constructed to remain operational and safe in times of flood.
- * In Flood Zone 3b (functional floodplain) essential infrastructure that has to be there and has passed the Exception Test, and water-compatible uses, should be designed and constructed to:
  - remain operational and safe for users in times of flood;
  - result in no net loss of floodplain storage;
  - not impede water flows and not increase flood risk elsewhere.

6. Development and Flood Risk

6.1. Environment agency flood data

To assess the NPPF flood risk classification for the site, the first step was to inspect the Environment Agency web based flood mapping data for flooding from rivers and seas, surface water and reservoirs. The rivers and sea flood map is used to inform planning of a sites Flood Zone(s), however the surface water and reservoir flood maps available from the Flood Warning Information Service should also be used to identify other flood risks.

From the Environment Agency flooding from rivers and seas map, it can be seen that the site falls within an area marked as flood zone 3 with a medium risk of flooding from fluvial sources namely the River Thames.

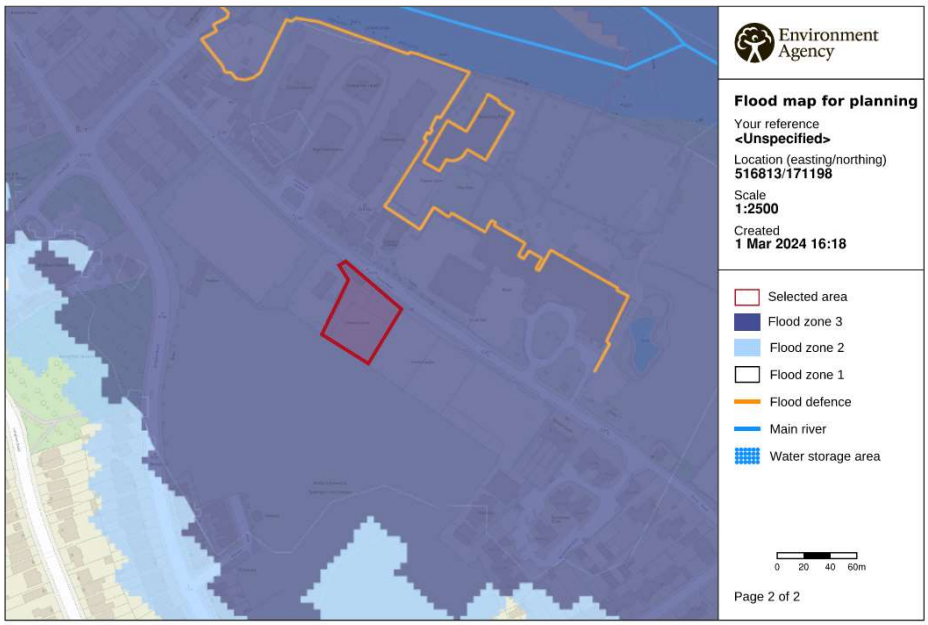


Figure 2- Environment Agency flood Risk Map

The Richmond Upon Thames SFRA mapping also concurs with the EA flood mapping

6.2. Site Specific Flood Zone Compatibility

As the site is proposed for leisure use, the proposals are as follows:

Leisure uses are classified as 'Less Vulnerable' development.

The site is located within Flood Zone 3 which is acceptable for this classification of development. Therefore, the sequential and exception test are not required to be undertaken and the development is considered appropriate (Refer to Table 3 for the Flood Zone compatibility table taken from NPPF technical guidance).

6.3. Risk of Surface Water Flooding to the Site

Surface water sewers are at risk of surcharging during extreme rainfall events with flooding occurring principally from manholes and gullies. Surcharging sewers can result in overland flow which, if originating at a higher elevation than a development the sewers could potentially pose a flood risk.

The UK Government Provides long term flood risk assessment via a flood warning informatics service. Much of this information was previously available from the Environment Agency maps, however this new service offers more detailed site-specific information to the public.

Flooding to the site from surface water is indicated in Figure 3 it can be seen that there is a risk of surface water flood risk to the site. However given the private nature of the site this is to be expected as flood maps do not take into account the presence of private drainage systems or SuDS

features. However the risk is indicated as being low and is managed on site through the drainage systems in place. Given the proposals the risk of surface water flooding is considered to be low.

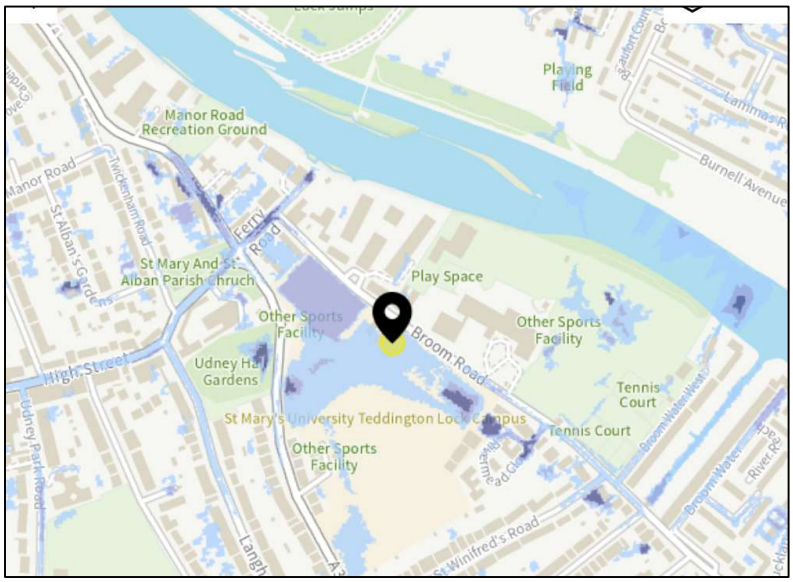


Figure 3: Flooding from Surface Water (Environment Agency).

6.4. Flooding from Reservoirs, Canals and Artificial Sources

Reservoir flooding is extremely unlikely to happen. There has been no loss of life in the UK from reservoir flooding since 1925. All large reservoirs must be inspected and supervised by reservoir panel engineers. As the enforcement authority for the Reservoirs Act 1975 in England, the Environment Agency ensure that reservoirs are inspected regularly, and essential safety work is carried out.

The site is located within in area susceptible to reservoir flooding.

The site is not in a critical drainage zone and no other artificial sources are nearby that pose a risk. No Flooding is recorded at the site. The site is therefore classified as at low risk of flooding from these sources.

6.5. Groundwater

Groundwater flooding is caused by the natural emergence of water at surface level originating from underlying permeable sediments or rocks (aquifers). The groundwater may emerge as one or more-point discharges (springs) over an extended area. Groundwater flooding tends to be more persistent than other sources of flooding, typically lasting for weeks or months rather than hours or days. Groundwater flooding does not generally pose a significant risk to life due to the slow rate at which the water level rises, however it can cause considerable damage to property, especially in urban areas.

The site is identified within an area susceptible to potential ground water emergence.

6.6. Pluvial

The site is relatively level and it is considered that any runoff from adjacent land would be unlikely to enter the site due to topography. There is therefore a low risk of flooding from properties to the development.

7. Mitigation

7.1. Fluvial / Tidal / Reservoir Flood Mitigation

The development site lies within Flood Zone 3 and at potential risk of flooding from the nearby River Thames. However given the sites usage the risk is considered low and it is not expected that the vulnerability would be increased as a result of the proposals.

Environment Agency's website indicates that the site is situated within an area with the potential for reservoir flooding however the risk is still considered low.

The site is within an area that can receive flood warnings and shall continue to do so.

7.2. Groundwater Flooding Mitigation

Groundwater flooding tends to be more persistent than other sources of flooding and typically lasts for weeks or months rather than hours or days. Generally, groundwater flooding does not pose a significant risk to life due to the slow rate at which the water level rises; however, it can cause considerable damage to property. Finished floor levels for the development should be set above the highest groundwater level.

Given the proposals it is not considered that any mitigation measures are deemed necessary.

7.3. Mitigation of Surface Water Flooding to the Site

The Environment Agency Surface Water flood map for the area indicates that the development is in a low risk of surface water flooding. Therefore, risk of flooding to the site from surface water flooding is considered low.

7.4. Mitigation of Surface Water Flooding from the Site

Assuming that the proposed drainage system is designed to provide adequate capacity, and that the private and adopted sewers will be maintained by their adopted authority, it can be assumed risk of flood from blockage or overloading is minimal.

8. SuDS Assessment

8.1. SuDS Design Philosophy

The CIRIA SuDS manual outlines the design philosophy for drainage for developments and states that SuDS design should, as much as possible, be based around the following:

- Using surface water run-off as a resource

- Harvesting and managing rainwater close to where it falls
- Managing run-off at the surface
- Allowing rainwater to soak into the ground
- Promoting evapotranspiration
- Slowing and storing run-off on the surface
- Reducing contamination of run-off through pollution prevention and filtering out pollutants
- Treating run-off to reduce the risk of urban contaminants causing environmental pollution.

Most sites will incorporate multiple solutions and their suitability is assessed based on an ascending scale of sustainability with associated amenity and environmental benefits as below:

Most Sustainable

Suds technique	Flood Reduction	Pollution Reduction	Landscape & wildlife benefit
Living Roofs	✓	✓	✓
Basins and ponds -constructed wetlands -balancing ponds -detention basins -retention ponds	✓	✓	✓
Filter Strips and Swales	✓	✓	✓
Infiltration devices -soakaways -Infiltration trenches and basins	✓	✓	✓
Permeable surfaces and filter drains -Gravelled area -Solid paving blocks -Porous paving	✓	✓	
Tanked systems -Oversized pipe/tanks -Storm Cells	✓		

Least Sustainable

9. Surface Water Drainage Strategy

The local Authority expects all developments to take advantage of any suitable opportunities to reduce surface water runoff.

Developers should utilise SuDS on all developments unless there are practical reasons for not doing so. Therefore, it is expected to see suitable consideration given to using sustainable measures in line with the following drainage hierarchy:

- Store rainwater for later use
- Use infiltration techniques, such as porous surfaces in non-clay areas
- Attenuate rainwater in ponds or open water features for gradual release
- Attenuate rainwater by storing in tanks or sealed water features for gradual release
- Discharge rainwater direct to a watercourse
- Discharge rainwater to a surface water sewer / drain

- Discharge rainwater to the combined sewer

The proposals will see no increase in impermeable area. The reconfiguration and expansion of the court areas provides opportunity to reduce the amount of impermeable surfacing and thus reduce flood risk and surface water runoff and offer additional benefit.

The courts area utilises a porous Asphalt system which consists of a frost resistant, permeable foundation of broken graded carboniferous limestone or granite aggregate on which is laid a two-layer system of open grade modified bitumen Asphalt. This forms the surface course or playing surface and binder course which improves the strength of the court. The surface course for the Junior Tennis/Pickelball Courts and the Tennis Court shall be coated with a coloured polyurethane or acrylic based paint and the surface for the Padel Tennis Court shall be a sand filled artificial grass.

The superficial geology of the area is that of the Kempton Park Gravel Member - Sand and gravel which is consistent with the proximity to the River Thames.

Through converting the areas currently indicated as tarmac to porous surfacing it is evident that flood risk through the reduction of surface water runoff would be seen.

The existing bounded site area totals approximately 2515m2 of which approximately 36% is impermeable surfaces equating to a total permeable surface area of 1600m2.

The proposals would see impermeable surfaces reduced to 26% increasing the permeable surfaces to 1850m2.

Utilising the modified Rational Method it can be approximated that runoff will reduce by approximately 8l/s for the 1 in 100 year event.

Return Period	Existing site runoff Rate l/s	Proposed site runoff Rate l/s
1 in 1	9.1	6.6
1 in 30	22.3	16.1
1 in 100	28.9	20.9

The above options demonstrate a viable drainage strategy for the site that utilises SUDS systems to convey surface water, treat and attenuate. It would not be feasible nor reasonable to impose additional suds measures on site given the proposals and the betterment provided.

10.Management & Maintenance

All drainage will be required to be maintained by the contractor during construction, following which the post construction phase maintenance would apply as per manufacturer recommendations.

The site owners will maintain the drainage to ensure that all systems operate effectively for their lifetime.

Activity	Indicative frequency	Typical tasks

Routine/regular maintenance	Monthly to annually (for normal care of SuDS)	Litter picking Inspection of inlets, outlets and control structures
Occasional maintenance	Annually up to 25 years (dependent on the design)	Silt control around components Vegetation management around components Suction sweeping of permeable paving Silt removal from catchpits, soakaways and cellular storage
Remedial maintenance	As required (tasks to repair problems due to damage or vandalism)	Inlet/outlet repair Erosion repairs Reinstatement of edgings Reinstatement following pollution Removal of silt build up

11. Conclusion

The report is based on current available information and preliminary discussions.

The assessment has been undertaken in accordance with the standing advice and requirements of the Environment Agency (EA) for Flood Risk Assessments as outlined in the Communities and Local Governments Planning Policy Guidance to the National Planning Policy Framework (NPPF).

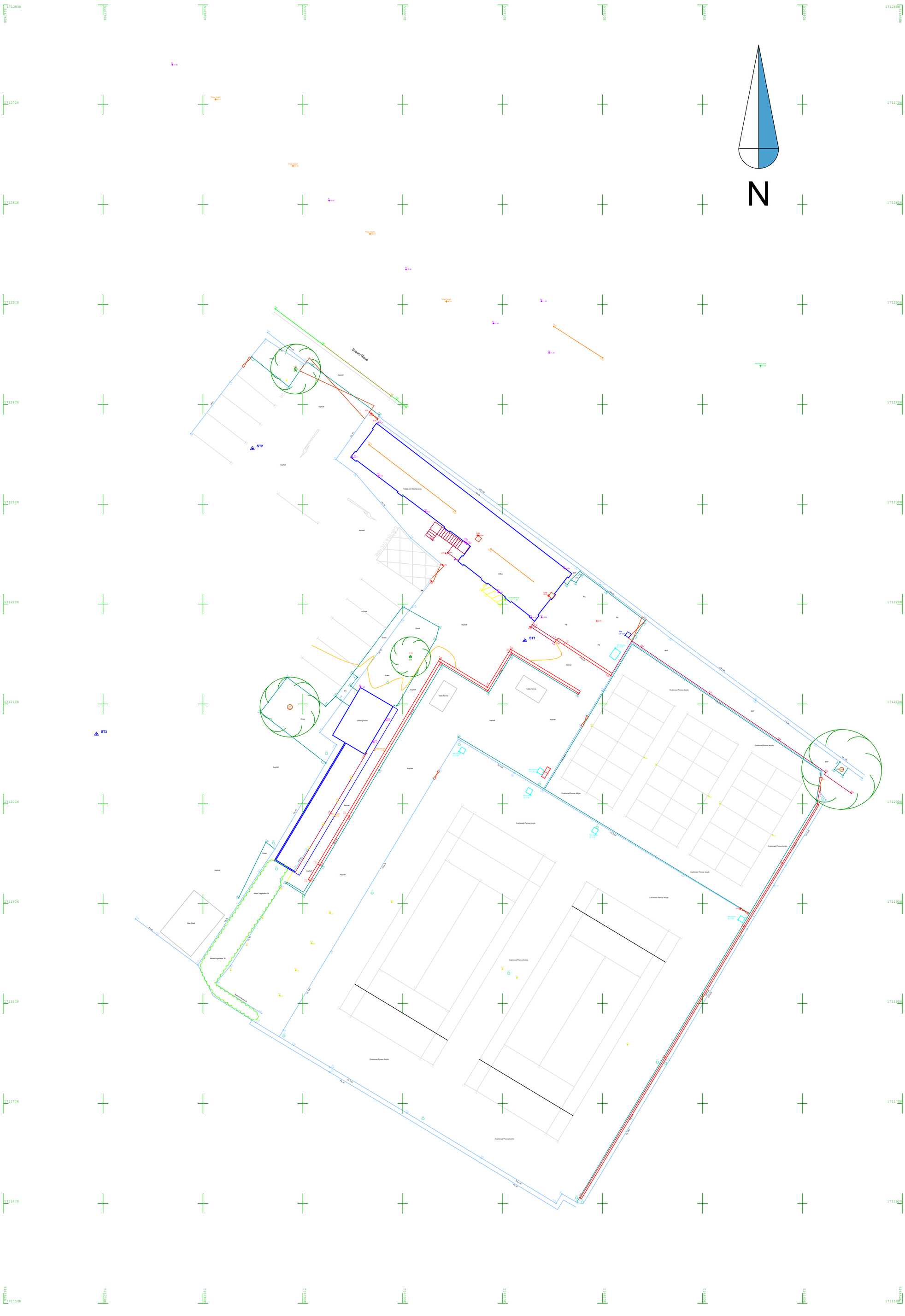
The assessment has:

- Investigated all reasonably foreseeable potential risks of flooding to the site,
- Considered the impact the development may have elsewhere with regards to flooding
- Considered outline design proposals to mitigate any potential risk of flooding determined to be present.

The report concludes that:

- The site is located within Flood Zone 3, the sequential and exception test are not required to be undertaken, therefore the development is appropriate at this location.
- Flood risk is identified from reservoir flooding, however this risk is considered to be low
- The SFRA highlights that the site is not within an area susceptible to groundwater flooding.
- There have been no recorded flooding events at the site. The site has not been subject to any historical flood events.
- The Environment Agency Surface Water flood map for the area indicates a low risk of flooding from surface water.
- The proposals shall not increase runoff rates from the site. Impermeable surfacing shall partially replaced with permeable surfacing thus providing a benefit and reducing flood risk

The site can be considered to have a low probability of suffering from any form of flooding or increasing risk to occupants and not increasing the probability of flood risk to other properties within the local catchment area.



TOPOGRAPHICAL | BUILDING | UTILITIES | LASER SCAN | BIM | UAV

Notes: Coordinate System

The survey has been orientated to the O.S. National Grid (OSGB36) via GPS and the O.S. Active Network. True OSGB36 coordinates have been established at:
Station: ST1 E: 516812.219 N: 171216.347 EL: 5.563
and a further OSGB36 point established to create a true O.S. bearing for angle orientation. A scale factor of 1 has been applied to the survey therefore the coordinates shown are arbitrary.
All levels are related to O.S. Datum.

Station	Easting	Northing	Level
ST1	516812.219	171216.347	5.563
ST2	516784.945	171235.578	5.649
ST3	516769.337	171206.984	5.356

All Stations are marked with a MAG Nail.

ON DETAIL SURVEY

A/C	Air Conditioning Unit	GV	Gas Valve	S/A	Soakaway
AV	Air Valve	GY	Gully	Stay	Stay
BdL	Bed Level	IC	Inspection Cover	SC	Stop Cock
BB	Belisha Beacon	IL	Invert Level	SV	Stop Valve
BOL	Bollard	JB	Junction Box	S	Stump
BH	Borehole	KO	Kerb Outlet	SW	Surface Water
Bk	Brick	LP	Lamp Post	STN	Survey Control Station
BKP	Brick paving	LI	Light	Tac	Tactile Paving
BT	British Telecom	MH	Manhole Cover	TP	Telegraph Pole
CAB	Cabinet	Mkr	Marker Post	TCB	Telephone Call Box
CP	Catch Pit	MB	Multiple Bole	THL	Threshold Level
Co	Concrete	NVP	No Visible Pipes	T/F	Top Of Fence
CL	Cover Level	OVG	Overgrown	T/P	Top Of Parapet Level
CUL	Culvert	O/H	Overhead	T/V	Top Of Vegetation
dil	Dilapidated	PM	Parking Meter	T/W	Top Of Wall
DCH	Drainage Channel	PS	Paving Slab	TL	Traffic Lights
ER	Earth Rod	PO	Post	UTL	Unable to Lift
EP	Electricity Pole	PB	Post Box	VP	Vent Pipe
FH	Fire Hydrant	Ri	Riser	WL	Water Level
FB	Flower Bed	RE	Rodding Eye	WM	Water Meter
FW	Foul	RS	Road Sign	WO	Water Wash Out
		SP	Sign Post		

ON FENCES/WALLS/DIVISIONS

A/B	Armco Crash Barrier	P/L	Palisade Fence	BW	Brick Wall
B/W	Barbed Wire Fence	P/F	Picket Fence	CW	Concrete Wall
C/L	Chain Link Fence	P/R	Post and Rail Fence	RW	Retaining Wall
C/B	Close Boarded Fence	P/W	Post and Wire Fence	SW	Stone Wall
E/F	Electric Fence	S/F	Safety Fence	TW	Timber Wall
H/F	Heras Fence	T/F	Trellis Fence		
H/R	Hand Rail	W/M	Wire Mesh Fence		
I/R	Iron Rail Fence				

ON BUILDINGS

CHM	Chimney	FRL	Flat Roof Level	RL	Ridge Level
DH	Door Head	FL	Floor Level	SH	Sill Height
DP	Down Pipe	HH	Head Height	SWP	Soil Pipe
EL	Eave Level	PL	Parapet Level	THL	Threshold Level

Rev	Comments	By	Chkd	Date
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

SURVEYBASE
PRECISION DIGITAL SURVEYORS
www.surveybase.co.uk
Bath: 01225 314370 - London: 02039 066892

Project Name
The Lensbury Resort, Broom Road, Teddington, London, TW11 9NU SITE 1

CAD Drawing Name
SB9941 - TOPO - SITE 1

Drawing Title
Topographical Survey of
(1 OF 1 A1 (PORTRAIT))

Client
SM Planning

Date
05/01/2024

Scale
A1 @ 1:200

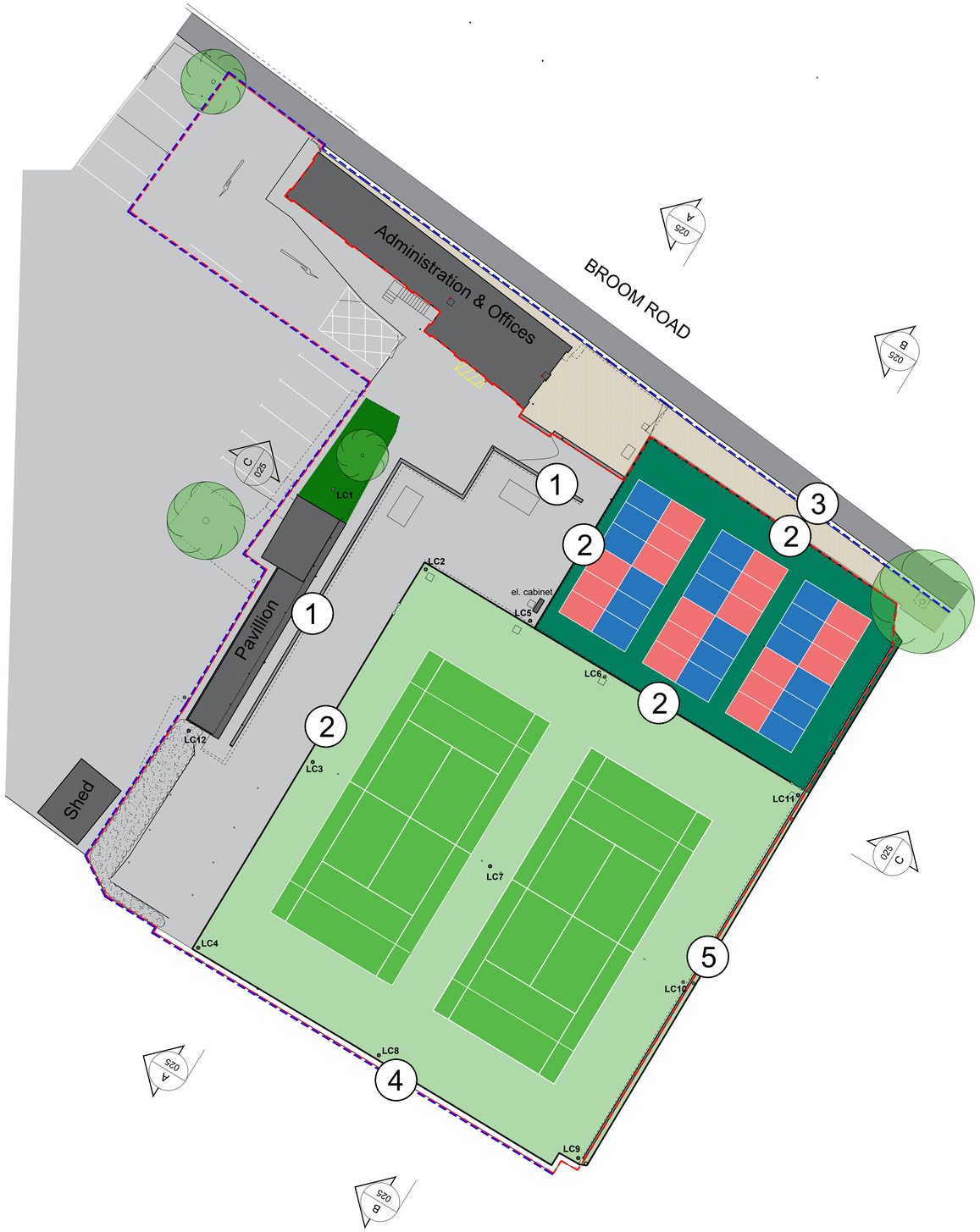
Drawn By	Checked By	SB Code	Revision
SB - JG	SB - CW	SB9941	-

Grid Orientation
NORTH GPS

Site Level Datum
OS GPS

All dimensions are to be checked on site where applicable.This drawing must not be scaled, and only written dimensions should be respected.

Tree species and sizes on this drawing are not guaranteed, and if critical should be verified by an arboriculturist. Tree spreads are average about the bole, and heights are approximate at the time of the survey.



KEY:

Existing Surfaces

- Tarmac
- Paving
- Acrylic porous surface dark green colour
- Acrylic porous surface light green colour
- Tennis courts painted markings over acrylic porous surface
- Junior tennis courts painted markings over acrylic porous surface

Existing Boundaries and Fencing

1. Low level concrete retaining wall
2. Chain link fencing (2.6m high)
3. Chain link fencing (2.6m high) with low level timber boarding to the front
4. Chain link fencing (2.6m high) with metal pallisade fencing (2m high) to the front
5. Chain link fencing (2.6m high) over low level concrete retaining wall (0.4m high)

LC - Metal lighting column

Site boundary

Ownership boundary

SCALE
0 2 4 10 20

supra architecture
Kemp House, 160 City Road, London
EC1V 2NX

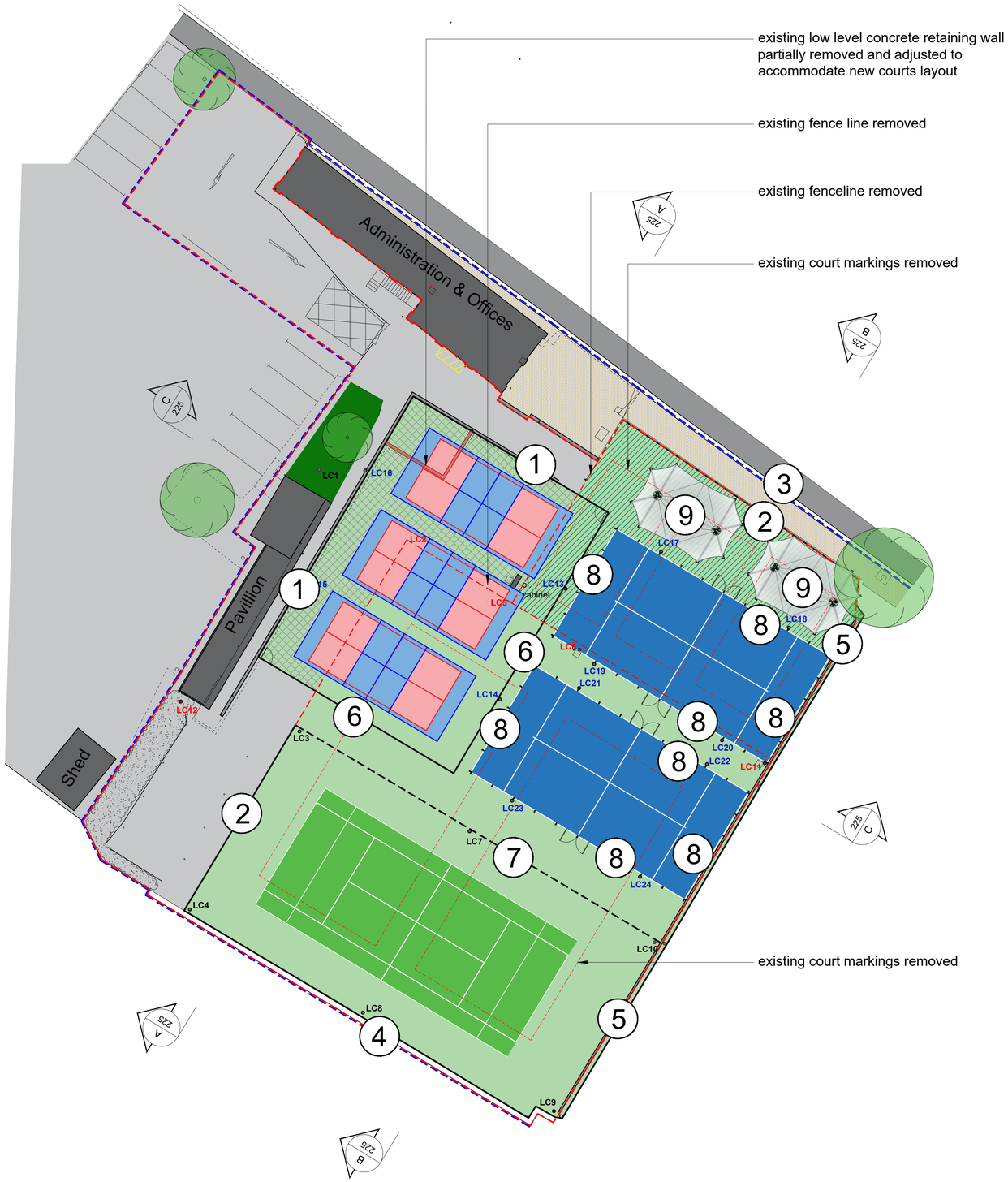
Lensbury Club Courts Alterations
Lensbury Club

Lensbury Club Courts - Site 01
Site Plan Existing
1:200@A1

revA - first issue 05/02/24
revB - minor amendments 21/02/24
issued for approval

SA23-07
005B

APPENDIX A –Site location and existing layout



Light Column Schedule

Number	Status	Comment
LC1	existing retained	
LC2	existing removed	
LC3	existing retained	new LED lamps
LC4	existing retained	new LED lamps
LC5	existing removed	
LC6	existing removed	
LC7	existing retained	new LED lamps
LC8	existing retained	new LED lamps
LC9	existing retained	new LED lamps
LC10	existing retained	new LED lamps
LC11	existing removed	
LC12	existing removed	
LC13	proposed	new column (LED)
LC14	proposed	new column (LED)
LC15	proposed	new column (LED)
LC16	proposed	new column (LED)
LC17	proposed	integral with court (LED)
LC18	proposed	integral with court (LED)
LC19	proposed	integral with court (LED)
LC20	proposed	integral with court (LED)
LC21	proposed	integral with court (LED)
LC22	proposed	integral with court (LED)
LC23	proposed	integral with court (LED)
LC24	proposed	integral with court (LED)

KEY:

Proposed Surfaces

- Existing tarmac
- Existing paving
- Existing tarmac leveled with new acrylic porous surface over
- Existing acrylic porous surface repainted to match the surrounding
- Existing acrylic porous surface light green colour
- Proposed tennis court painted markings over new acrylic porous surface
- Proposed shared junior mini red tennis court / pickleball tennis court painted markings over new acrylic porous surface
- Proposed padel tennis courts with new artificial grass play surface

Proposed Boundaries and Fencing

1. Low level concrete retaining wall

2. Chain link fencing (2.6m high)

3. Chain link fencing (2.6m high) with low level timber boarding to the front

4. Chain link fencing (2.6m high) with metal pallisade fencing (2m high) to the front

5. Chain link fencing (2.6m high) over low level concrete retaining wall (0.4m high)

6. Proposed low level (1.1m high) chain link fencing around mini red junior /pickleball tennis courts perimeter

7. Proposed removable netting (1.8m) high

8. Proposed Padel Tennis Court enclosure; Both ends of the Padel Tennis Courts and first 4 metres of each end of the side walls in toughened glass 2m wide x 3m high panels. The end walls and the first 2 metres of each end of the side walls to have 1 metre high mesh panels over glazing. The remainder of the side walls, including gates, to be in wire mesh 3m high panels. All metalwork galvanized and powder coated black.

9. Proposed tensile fabric canopy on metal frame support

LC - Metal lighting column

Site boundary

Ownership boundary

SCALE
0 2 4 10 20

supra architecture
Kemp House, 160 City Road, London EC1V 2NX

Lensbury Club Courts Alterations
Lensbury Club

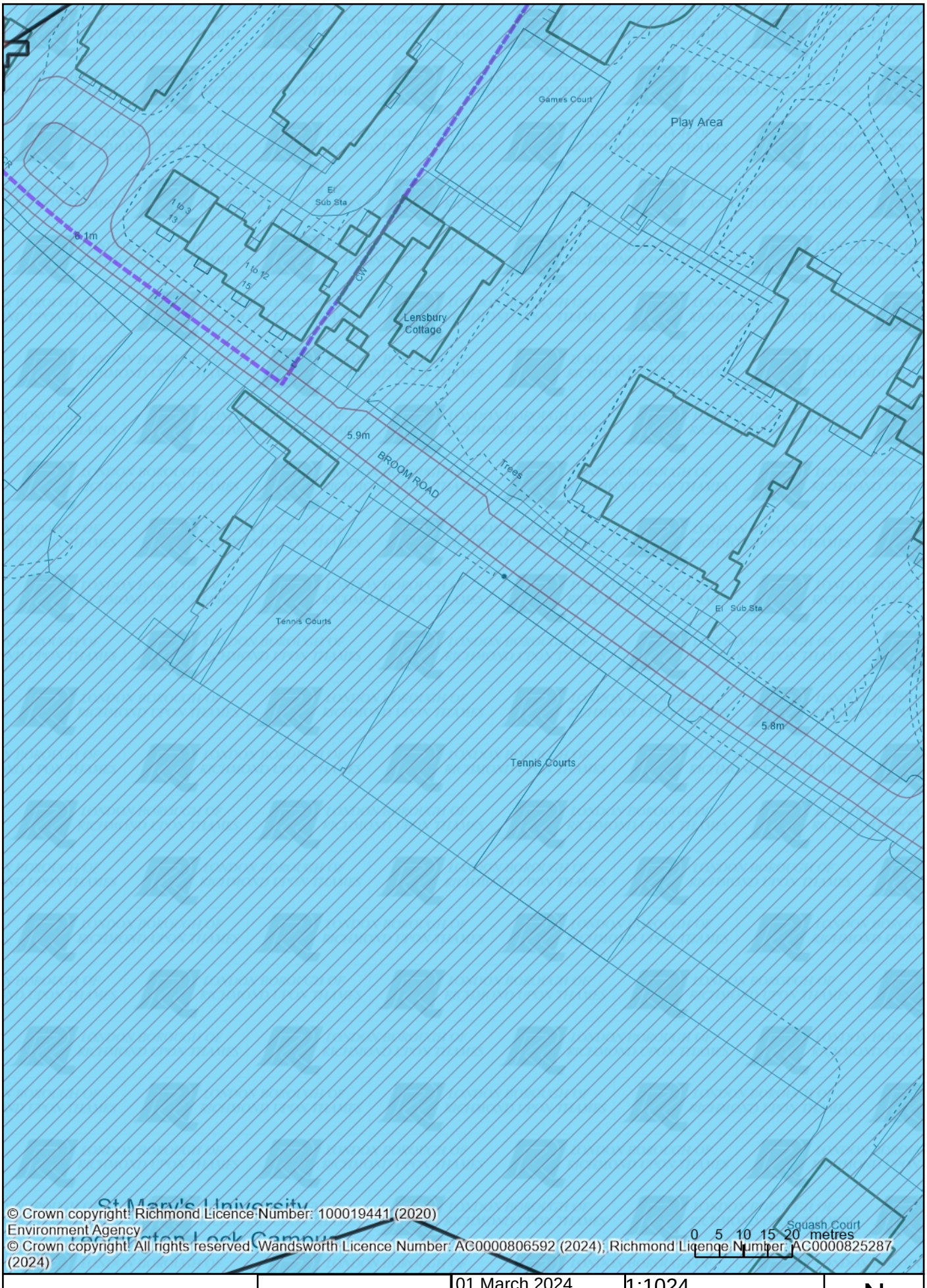
Lensbury Club Courts - Site 01
Site Plan Proposed
1:200@A3

revA-issued for approval 05/02/24
revB-minor amendments 21/02/24
issued for approval

SA23-07
105B

APPENDIX B – Proposed Layout

APPENDIX C – Flood Mapping



LONDON BOROUGH OF RICHMOND UPON THAMES

01 March 2024

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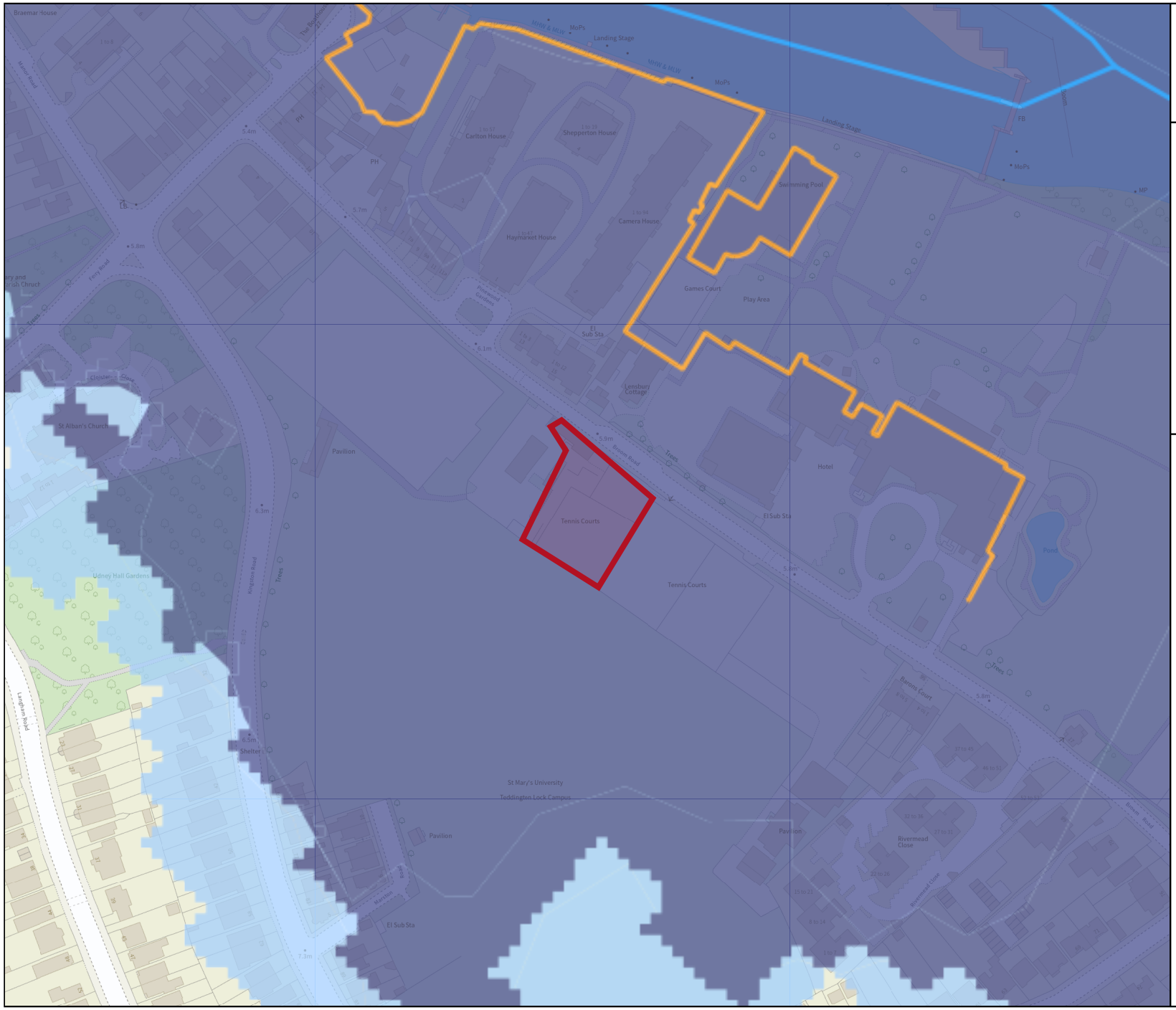


Environment Agency

Flood map for planning

Your reference
<Unspecified>

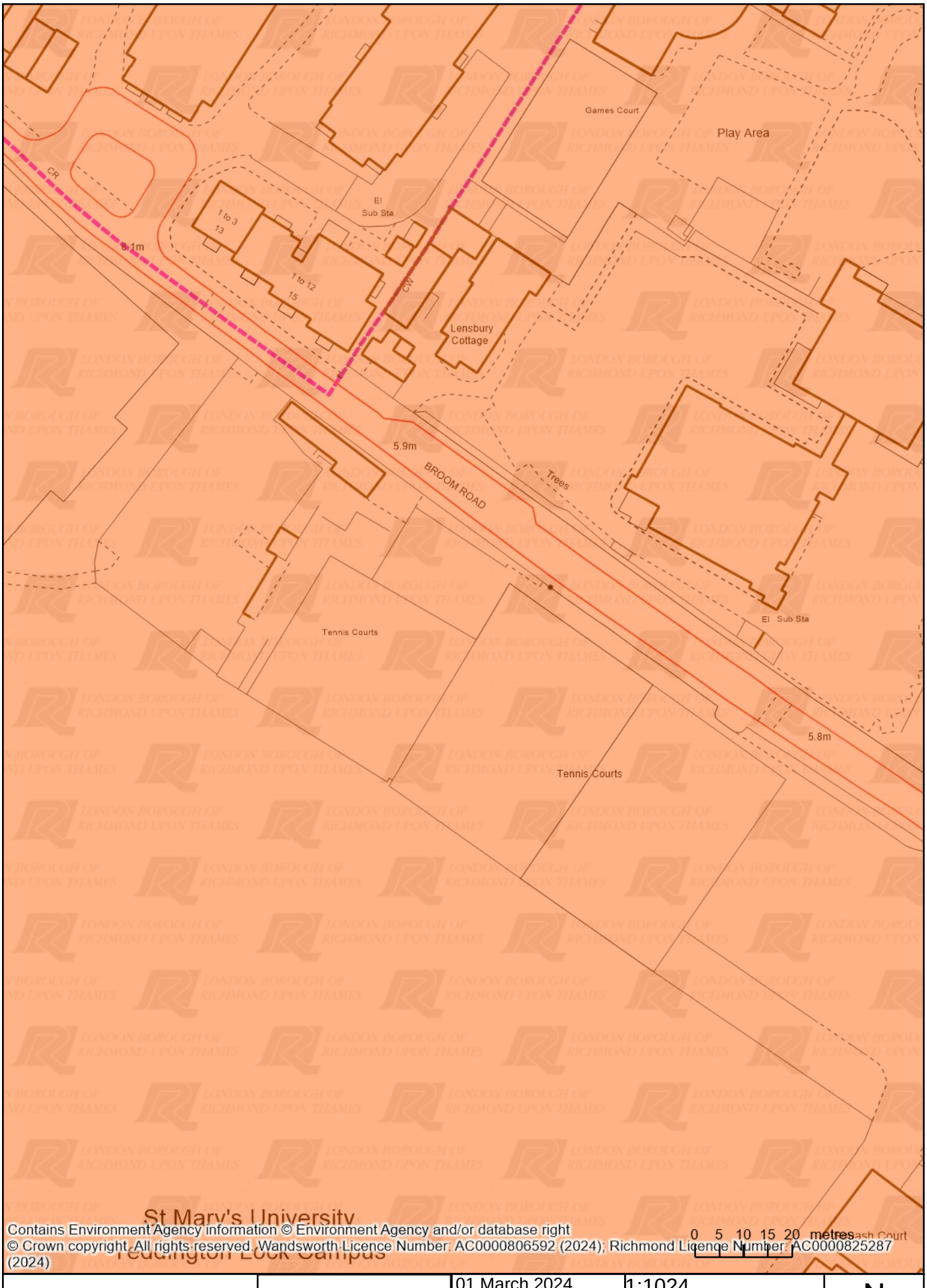
Location (easting/northing)
516813/171198

Scale
1:2500

Created
1 Mar 2024 16:18

- Selected area
- Flood zone 3
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Water storage area

0 20 40 60m



0 5 10 15 20 metres

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01 March 2024

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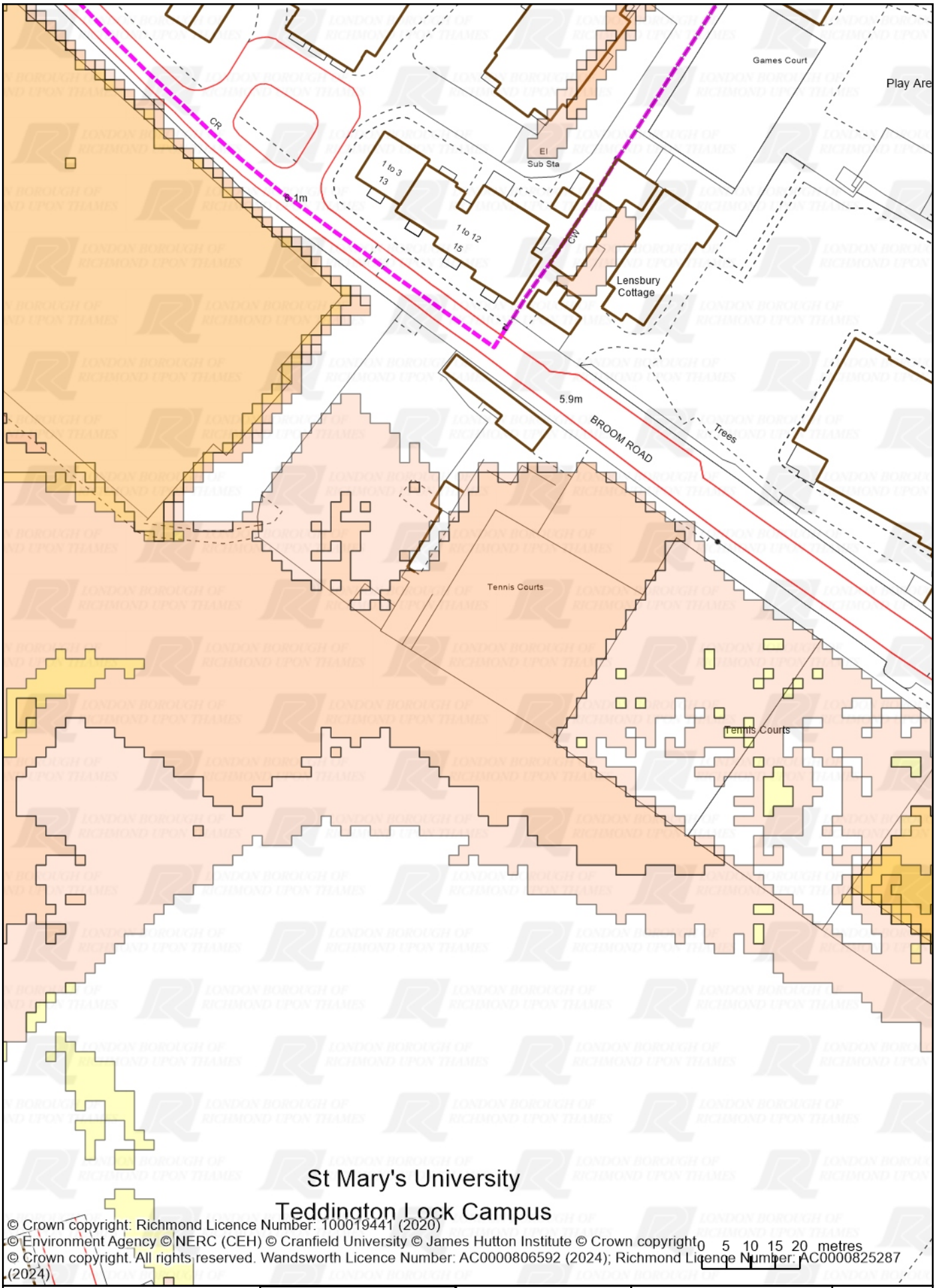

0 5 10 15 20 metres

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