

WESTON RENGIFO ARCHITECTS PRACTICE

**Flood Risk Assessment**

Tooting Bec Lido – SW16

May 2023

WRAP

## 1. The Risk:

The proposal and the subject of this assessment is to demolish the existing changing facilities at the shallow end of Tooting Bec Lido and construct a new entrance building accommodating a café, entrance and toilets. The proposal also sees the refurbishment and extension of the existing 1930s café building to provide a shelter and shower facilities. Some existing storage along the Eastern edge of the site is demolished and storage/shower/family change/toilet facilities are proposed in a building which replicates the perimeter changing facilities across the site. All buildings are single storey ancillary use and there is no basement within the proposal. The site lies within Flood Zone 1\* and is classed as an area with a very low risk of flooding from rivers and the sea by the EA Flood Map (refer to EA flood map on Appendix 1) . According to the EA, the site is predominantly at very low risk of surface water flooding (meaning a chance of flooding of less than 0.1% each year), however, the flood risk summary reports the highest risk from surface water within a 15 metre radius\*. Notably, flooding from reservoirs and groundwater is unlikely in this area. Part of the site along the Eastern edge falls within a Critical Drainage Area. Only the proposed edge facilities (storage/shower/family change/toilet facilities) are located within this region and replace an existing building of a similar size and scale.

For the purposes of this flood risk assessment The EA recommends that the areas within Flood Zone 1 provide an FRA when one or more of the following points apply: *“its an area of critical drainage problems”* and; *“the site is at risk from other sources of flooding and its development would increase its vulnerability”*.

\*Flood Zone 1 low probability - land assessed as having a chance of flooding of less than 0.1% each year.

\*High Risk Surface Water - High risk means that this area has a chance of flooding of greater than 3.3% each year.

## 2. Impact

On this particular proposal we believe that the ancillary use of the proposals will not increase any known flood risk for the site, nor incur any known residual risks.

The proposed finished floor levels are to be kept in line with existing floor finish levels and no lower (i.e. no basements or lower ground floor accommodation).

## 3. Mitigation

The proposed works include the following mitigation measures:

- Green roofs will contribute to flood prevention and mitigation by absorbing and buffering stormwater
- Rain water harvesting storage tank (location tbc)

- All external paving areas will be built with permeable materials (i.e. block paving or Eco-grids allowing the natural absorption of water)
- Internal floor finishes should be waterproof given the nature of the Lido

#### 4. Resistance & Resilience

It is recommended that the following measures (in line with CS26-7.66) should be considered, in consultation with the area building control department:

- Use of dry-proofing and wet-proofing building materials where appropriate.
- Water resistant coatings for external walls.
- Standard moveable flood barriers should be available for doors, windows, air bricks and any other apertures in exterior walls. There should be a regime under health and safety precautions that after flooding all external protectors must be removed at the earliest opportunity. (a) for ventilation to dry out any moisture (b) to make sure that any heating vents are not blocked when the heating is switched back on.
- Non-return valves should be considered for sewers to prevent back-flow.
- Electrical wiring feeding low level points and switches should drop from the ceiling rather than be fed from floor level. Switches and points may need to be raised.
- Cracks to doors and render should be repaired to reduce water seepage.
- Use of concrete floors rather than timber
- Location of boilers and electrical white goods above the possible flood level
- No chipboard or MDF, instead using plastic and metal alternatives.

Further considerations:

It is recommended that all property owners seek further advice from the government sponsored web-site, [www.direct.gov.uk](http://www.direct.gov.uk). This gives comprehensive details on all flood protection provisions which are recommended.

#### 5. Personal Flood Plan

##### a) Flood Preparation Plan (Flood Watch)

The Flood Preparation Plan is activated on receipt of the Flood Watch warning from the Environment Agency, or from other sources, e.g. TV, Radio, local contacts. Flooding is possible, and the situation could worsen, so:

- Watch water levels on nearby roads in case overtopping does occur.
- Ring Floodline on 0345 988 1188; to confirm time and height of predicted flood levels.
- Make sure you have what you need to put your flood evacuation plan into action.
- Consider when to implement Evacuation Plan.
- Be ready to move important equipment, such as computers, above flood level upon receipt of a flood warning.

- Keep a store of plastic bags (grocery bags are fine) to place around the legs of furniture when you receive a flood warning.
- Identify a suitable location for evacuation of vehicles to higher ground.
- Consider the height at which goods are fixed, stored or displayed - the higher the goods, the less chance of damage.
- Copy vital hard copy and electronic records and store them in a safe place. This includes financial and insurance records, product lists, formulas and specifications, staff, customer and supplier databases and staff files.
- Obtain or construct sandbags or other items to protect lower lying entrances to the site.

#### b) Evacuation Plan (Flood Warning)

The flood evacuation plan should be implemented when a Flood Warning is received. Flood Warning means flooding is now expected, so put your flood evacuation plan into action. The actions are as with Flood Watch plus:

- Move vehicles to other locations. Flooding may be expected in less than 2 hours so with a large number of vehicles on site this may have to be implemented sooner, or smaller vehicles (cars, vans) moved before larger vehicles (trucks etc).
- Move valuables and other items to safe locations . Put sandbags or flood boards in place.
- Turn off gas and electricity.
- Initiate evacuation of the premises.
- Follow dry escape route. (refer to flooding escape routes in Appendix 4)

#### c) Evacuation Plan (Severe Flood Warning)

The flood evacuation plan should be implemented as a matter of urgency when a Severe Flood Warning is issued. Severe Flood Warning means severe flooding is now expected. The actions are as with Flood Warning plus:

- Be prepared to lose power supplies - gas, electricity, water, telephone
- Power cuts are common during a flood so carry a torch with you if at night (torches to be available)
- Co-operate with emergency services and local authorities
- Security procedures - Lock windows, doors and set the alarm.
- Try to keep calm, and to reassure others, and evacuate the site
- Live electricity and gas can be extremely dangerous. Turn off gas and electrical appliances immediately and always turn off building services before water enters the building.

The local council Emergency Planner and the county's Emergency Planning Department/Civil Protection Unit can help you determine the conditions under which a flood evacuation would be necessary, and offer advice.

Refer to Appendix 4 for the Escape Route Plan detailing a map of the route the occupiers would take when leaving the premises in order to reach a safer locality in a flood event.

d) All Clear

An all clear will be issued when flood watches or warnings are no longer in force.

1. Flood water levels receding.
2. Check all is safe to return.
3. Seek advice.

e) Environment Agency's Flood Warning Codes

Detailed on the next page are the steps we recommend to set up a flood risk evacuation plan (\*).



Flood Watch

Flood Watch: Flooding is possible. Beware. Watch out!



Flood Warning

Flood Warning: Flooding of homes, businesses and main roads expected. Act now!



Severe Flood Warning

Severe Flood Warning: Severe flooding is expected. Danger to life and property. Act now!

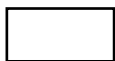
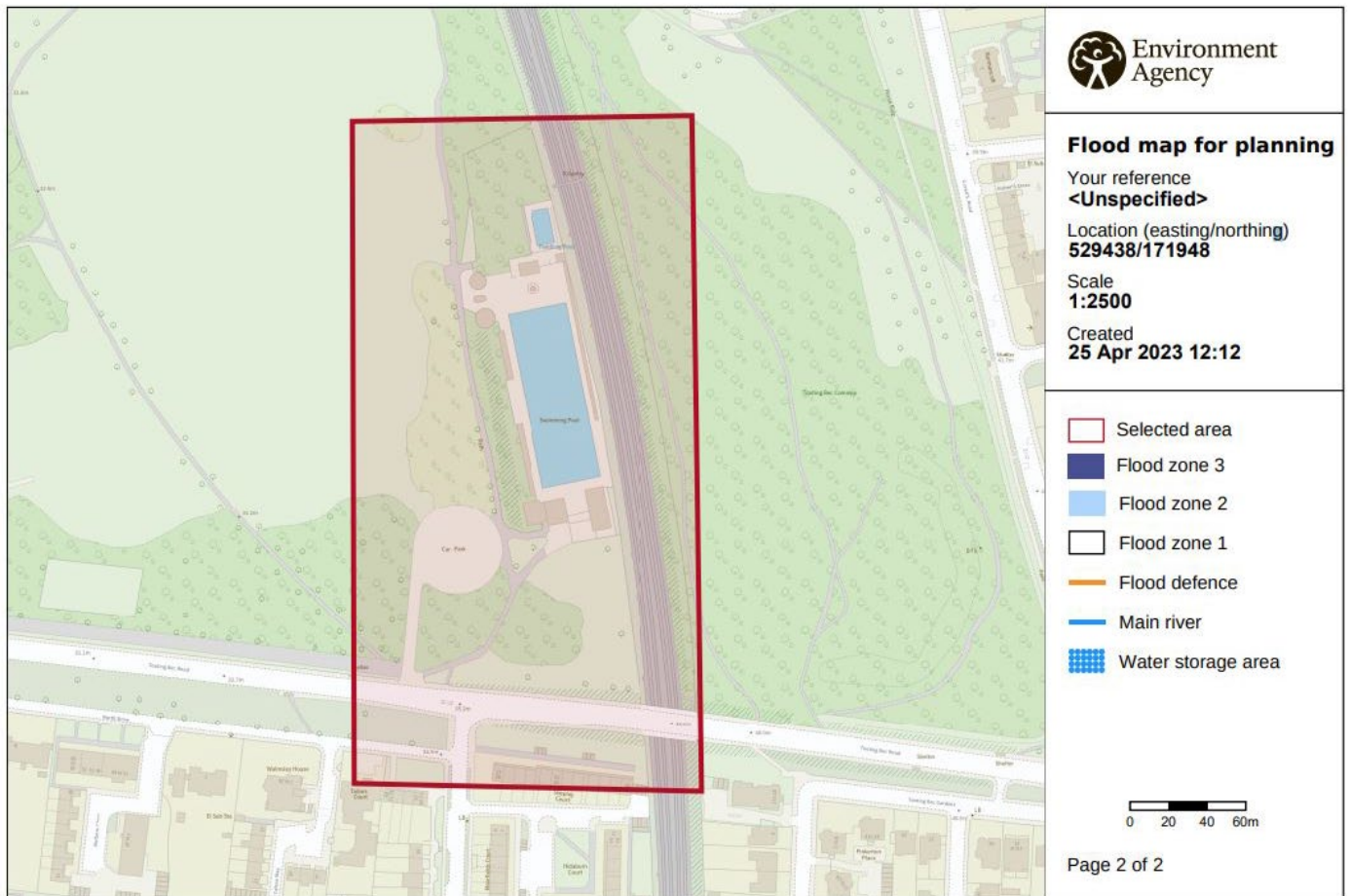


All Clear

All Clear: Flood water levels going down. Check it is safe to return.

(\*) Source: Environmental Agency's flood Warning codes:

# Appendix 1: Environmental Agency flood map for Tooting Bec Lido – SW16 1RU

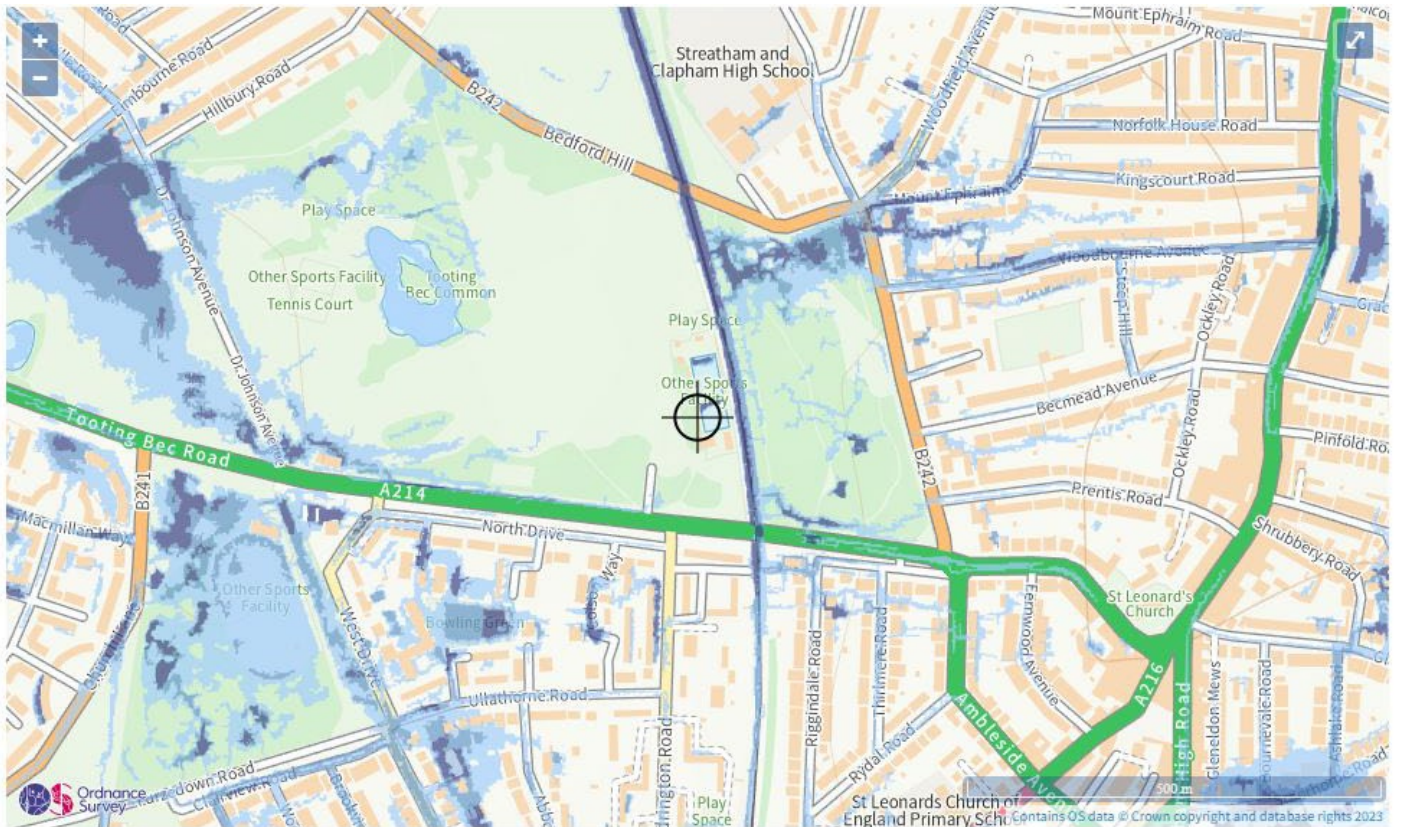


Zone 1 Low Probability

Land assessed as having less than 1 in 1,000 annual probability of river or sea flooding.

(Land shown in white on the Flood Map)

## Appendix 2: Surface Water Flooding Risk



Extent of flooding from surface water

● High ● Medium ● Low ○ Very Low ⊕ Location you selected

### Surface water flooding – Partially High Risk

High risk means that this area has a chance of flooding of greater than 3.3% each year. Surface water flooding can happen when heavy rain cannot drain away; is difficult to predict as it depends on rainfall volume and location; can happen up hills and away from rivers and other bodies of water; Is more widespread in areas with harder surfaces like concrete.



### Appendix 3: Critical Drainage Zone



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Critical Drainage Zone

