

RENAISSANCE RESIDENTIAL TOWER – PLANNING CONDITION 41 (PART)

Project:		Renaissance Project, Manchester		Project No:	L20081		
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Subject: Renaissance Project – Residential Tower – Planning Condition 41 Partial Response – Rev A

If you do not receive all pages, or some are unclear, please advise immediately

1 INTRODUCTION

The purpose of this memorandum is to provide Manchester City Council (MCC) and the Lead Local Flood Authority (LLFA) with a response to the following elements of planning condition 41 for the Planning Application (132088) for the Residential Tower of the Renaissance Project.

The planning condition text for Condition 41 is as follows:

41) No development shall take place until the following detail for flood risk has been submitted to and approved in writing by the local planning authority.

- **An evacuation plan and strategy for access and egress**
- **A full site plan detailing the procedure(s) which would be undertaken in the event of a flood occurring and the car parking area (Level -02) becoming inundated; to ensure it can be quickly brought back into use to serve the development**
- Evidence of EA consultation on flood storage compensation
- The development shall be constructed in accordance with the embedded design for flood resilience and resistance in the Flood Risk Assessment C1504-20210058 Version Rev E date 03 December 2021.

This memorandum provides only information relating to the first two points (highlighted in bold) The evacuation plan and procedural site plan following a flood event.

2 RELEVANT DOCUMENTS

The drainage proposals for the site have been guided by the following national and local guidance:

- “Draft Decision Notice” from MCC (Application Number 132088/FO/2021)
- C1504-20210058 Flood Risk Assessment Rev E, December 2021 produced by SGI LTD;
- Building Regulations 2010 – Approved Document H (Drainage and Waste Disposal); and C753 The SuDS Manual (CIRIA, November 2015);
- Environment Agency Climate Change Allowances 2016;
- National Planning Policy Framework (Department for Communities and Local Government, February 2019);
- Non-Statutory Technical Standards for SuDS (March 2015);
- Planning Practice Guidance (Department for Communities & Local Government, March 2014); and
- EA Flood Map for Planning, <https://flood-map-for-planning.service.gov.uk/>, accessed March 2022.

3 THE EXISTING SITE

The application site boundary covers some 0.35ha and includes the proposed residential tower within the northern part of the application site boundary as well as alterations to the public realm to the south. The site is bounded to the west by the River Irwell, to the north by Victoria Bridge Street, to the east by the Deansgate highway and to the south by Blackfriars Street. Refer to enclosed Plans REN-BGE-C-GEN 050 & 051

The proposed residential tower comprises a part ground and 26 storey and part ground and 13 storey building comprising 300 no. residential apartments with ground floor retail/leisure floorspace with associated landscaping, cycle and vehicle parking, supporting infrastructure and associated works. The public realm alterations will include a riverside walkway and landscaping and the opportunity to provide leisure/food and beverage space.

EA Flood Mapping indicates that the site is partially within Flood Zone 2/3. Refer to Figure 1 below. The extent of flooding is shown to be contained along the western boundary. The approved FRA advised that the EA's hydraulic modelling data indicated that the 1:100 year flood level was 25.40m AOD and the 1:1000 year flood level was 27.45m AOD.

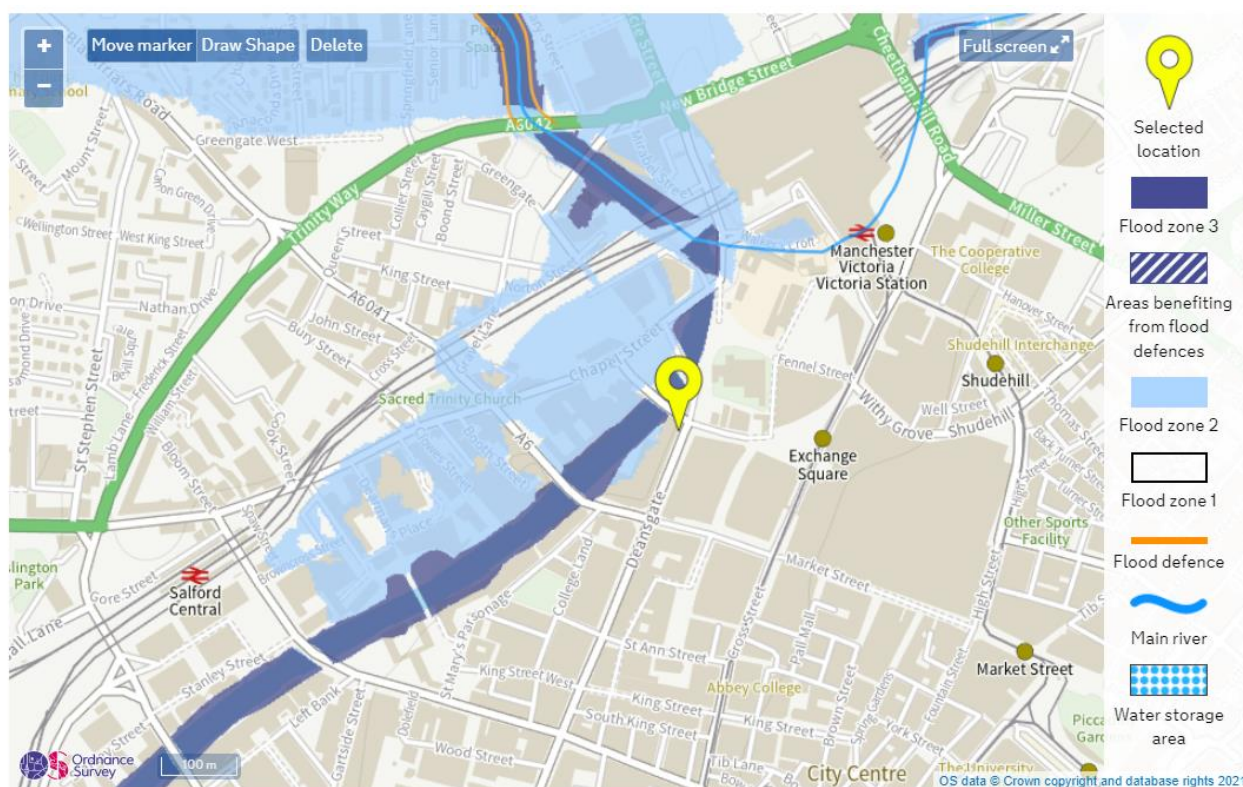


Figure 1: EA Flood Map for Planning

The proposed finished floor levels within the residential tower are indicated on Plan REN-BGE-S-RT-182. Ground floor level will be at 32.46m AOD, the lower ground floor -01 (LGF01) is at 28.81m AOD and the lower ground floor -02 (LGF02) is at 25.26m AOD. Therefore, only LGF02 is at risk from flooding during events exceeding the 1:100 year event. In accordance with the approved FRA, LGF02 is to be used for car parking and areas of plant only. Refer to enclosed Plans 150_B2_02_2298 Rev E [Proposed Level -02 General Arrangement Plan] and 150_B2_02_2299 Rev E [Proposed Level -01 General Arrangement Plan] by Jon Matthews Architects. Residential dwellings which are located at LGF01 and above are not at risk from inundation from floodwaters from any event up to and including the 1:1000 year fluvial flood event.

4 FLOOD MANAGEMENT PLAN

The western part of the site lies within a flood warning area as defined by the EA. As part of the emergency procedures, the proposed development will be linked to the EA's Flood Warning Directory Service. End users/residents will be required to sign up to the EA Flood Warning Service. An appointed management company will have responsibility to act on Flood Alerts and to manage the Flood Emergency Procedure.

Manchester City Council (MCC) is designated a Category 1 Responder under the Civil Contingencies Act 2004. As such, the Council has defined responsibilities, along with other organisations for developing emergency plans, contingency plans and business continuity plans to help reduce, control or ease the effects of an emergency. The diverse and complex nature of flooding, and the consequence which arise, require a comprehensive and often sustained response from a wider range of organisations. MCC have prepared a multi-agency flood plan to allow all responding parties to work together on an agreed coordinated response to severe flooding.

4.1 FLOOD EMERGENCY PLAN

The Flood Emergency Plan is as outlined below. The Plan must be signposted within all buildings and will ultimately be part of the building operations manual.

- All occupants and residents will be required to sign up to the EA's early warning flood service. In the event of a flood warning an evacuation strategy will prevail until floodwaters start to encroach upon the site. Modelled data indicates that during the 1:100 year event a flood depth of some 0.14m is anticipated within LGF02 and during the 1:1000 year event a flood depth of some 2.19m is anticipated within LGF02.
- The car park must be shut in times of flood warning and they must be evacuated to ensure the car park is empty prior to the erection of the flood barriers. The flood barrier at the core locations will be erected after the evacuation is complete. The detailed car park flood management strategy will be developed by the operator. Water must be able to run through the LGF02 with only the ramp and cores protected.
- As per the approved FRA, vehicle barriers/loops or equivalent will also be required around any openings to prevent buoyant vehicles being dragged downstream
- Residents within the residential tower should remain within their apartments, which are at LGF01 and above, unless notified to evacuate by either the management company appointed to manage the Flood Emergency Procedure or by emergency services, including Category 1 and 2 responders under the Civil Contingencies Act 2004.
- Safe access and egress to/from the site can be obtained via Deansgate Road which is located at ground floor level and thus not at risk from fluvial flooding. In the event of any evacuation residents/site users should head onto Deansgate and then eastwards along one of a number of potential routes towards the City Centre. During an evacuation residents/site users must not attempt to cross the River Irwell via the nearby road bridge links as flooding may occur within the area around Chapel Street to the west of the site. Refer to Figure 2 below.
- In the event of evacuation, the area immediately around the River Irwell, including the areas of public realm along the western boundary should be avoided as flooding is likely to occur as these areas are at a similar level to LGF02.

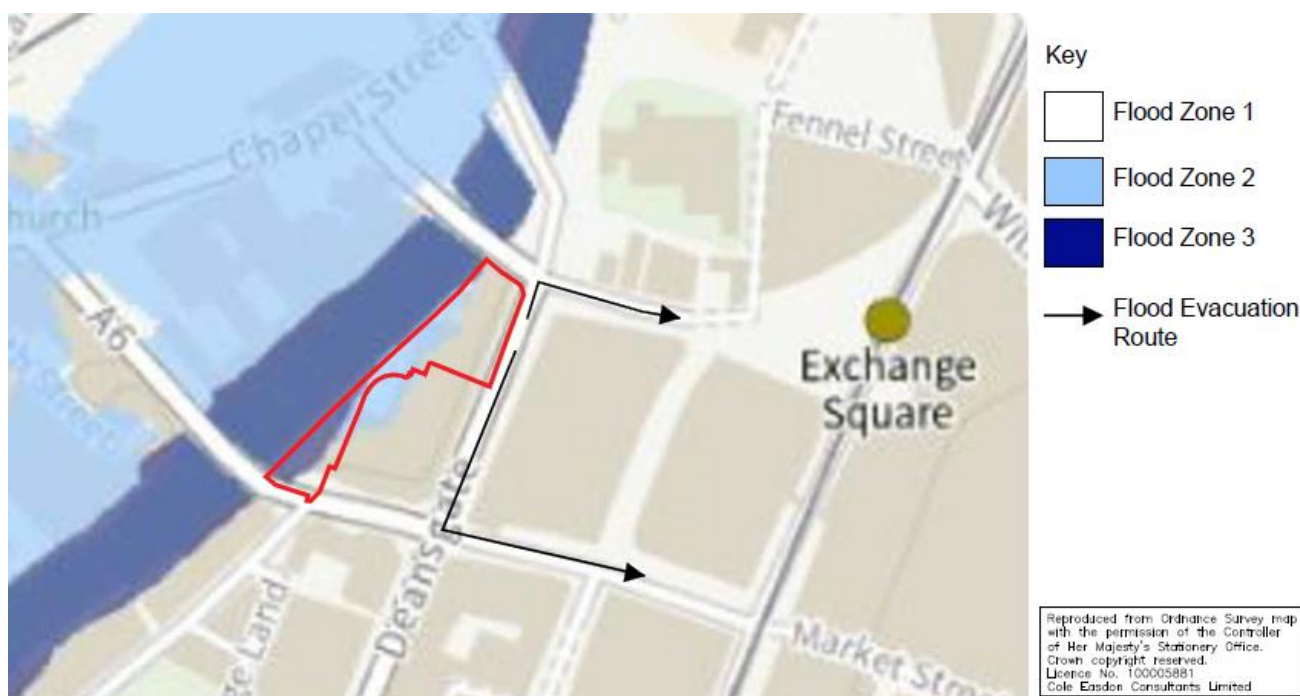


Figure 2: Evacuation Route Map

4.2 POST FLOOD EMERGENCY PLAN

As per the approved FRA flood resilient construction techniques are proposed to be used within the construction of the LGF02 up to the 1:1000 year flood level of 27.45m AOD, this will help ensure that the residential car parking area can be quickly reopened following a flood event. The post flood emergency plan outlined below will ultimately be part of the building operations manual.

- Following a flood event; once the floodwaters have receded then any remaining water within LGF02 should be pumped back into the River Irwell;
- The demountable flood defences deployed around the cores should be removed. However, access should still be prevented to LGF02 from the upper levels until the area is deemed safe;
- A full inspection of LGF02 should be undertaken in order to assess the potential damage caused by the flood event. This should include, but is not limited to:
 - Inspections made to the structure, including supporting columns for the LGF01 Podium and superstructure columns;
 - CCTV survey of the proposed SuDS drainage scheme including attenuation tank, flow control and outfall. Debris may have entered the system during the flood event which could prevent its operation;
 - Inspection of any internal fit out within the LGF02 area and stair/lift cores;
 - Inspection of the River Wall. During events in excess of the 1:100 year event the River Wall could have been damaged by the rising water levels or floating debris – either within the River or from buoyant vehicles within the car park.
- Following inspection a full list of remedial actions should be compiled in order to bring the LGF02 parking back into use for residents. This is likely to include, but is not limited to:
 - Debris and silt removal from LGF02;
 - Removal of damaged vehicles;

- Structural repairs as necessary;
 - Jetting of the SuDS attenuation system to remove debris which has entered the system;
 - Replacement of internal fittings to the LGF02 including stair/lift cores. Flood resilient design should be used to 27.45m AOD in accordance with the approved FRA which will speed up the replacement process;
 - Repairs to the River Wall as necessary.
- Following remediation, a final inspection should take place before allowing access to residents.

5 ENCLOSURES LIST

REN-BGE-C-GEN-050	[Proposed Drainage – Basement Level Southern Plan]
REN-BGE-C-GEN-051	[Proposed Drainage – Basement Level Northern Plan]
REN-BGE-S-RT-182	[General Elevations Sheet 3]
150_B2_02_2298	[Proposed Level -02 General Arrangement Plan] by Jon Matthews Architects
150_B2_02_2299	[Proposed Level -01 General Arrangement Plan] by Jon Matthews Architects