

Flood Risk Assessment

11 South Parade

Rochdale

OL16 1LR

Proposal: Change of Use of First and Second Floors to 2 No. Self-Contained Flats (Retrospective) and Provision of Bin and Cycle Storage to rear.

December 2024

Building Design Services (BDS)

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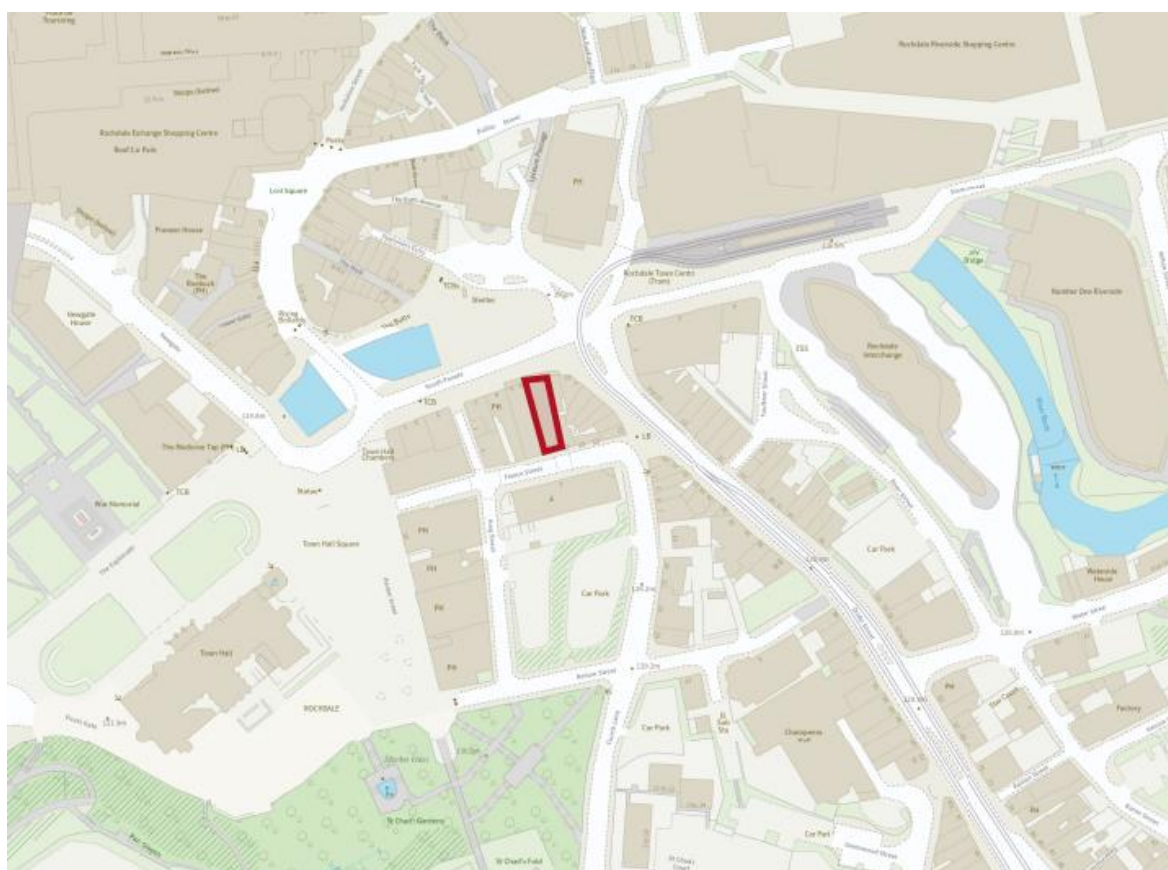
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DESCRIPTION OF DEVELOPMENT

Existing site:

The application site is located to the west side of Drake Street in Rochdale Town Centre. The building fronts on to South Parade to the North side and Fleece Street to the South . The local area is well developed predominantly with buildings, roads, pavements, and other hardstanding areas such as car parks etc. The River Roch runs through the centre of the town. It is culverted to the North of the Development Site approx. 25m distant and opens up approx. 40m W before being culverted again.



Above: Map showing location of Flood Risk.

Development Proposal:

The applicant is applying for full planning permission to change the use of the first and second floors of the building from storage use to residential consisting of Two 1-bedroom self-contained flats. The flats would be accessed from the rear of the building from Fleece Street similar to existing. Each flat would consist of a kitchen/living room, bedrooms and separate bathroom. The yard area to the rear would be provided with dedicated bin storage and cycle storage for the flats.

No external alterations are proposed to the building.



Above: Plans showing the proposed layout of the flats at first and second floor levels.

The site comprises an existing building which occupies the North and South sides of the site. However, the building would be split with commercial activities at the ground floor. The residents will have access to flats on the first and second floors via a stairwell accessed from the south on Fleece Street.

Existing and Proposed Water System

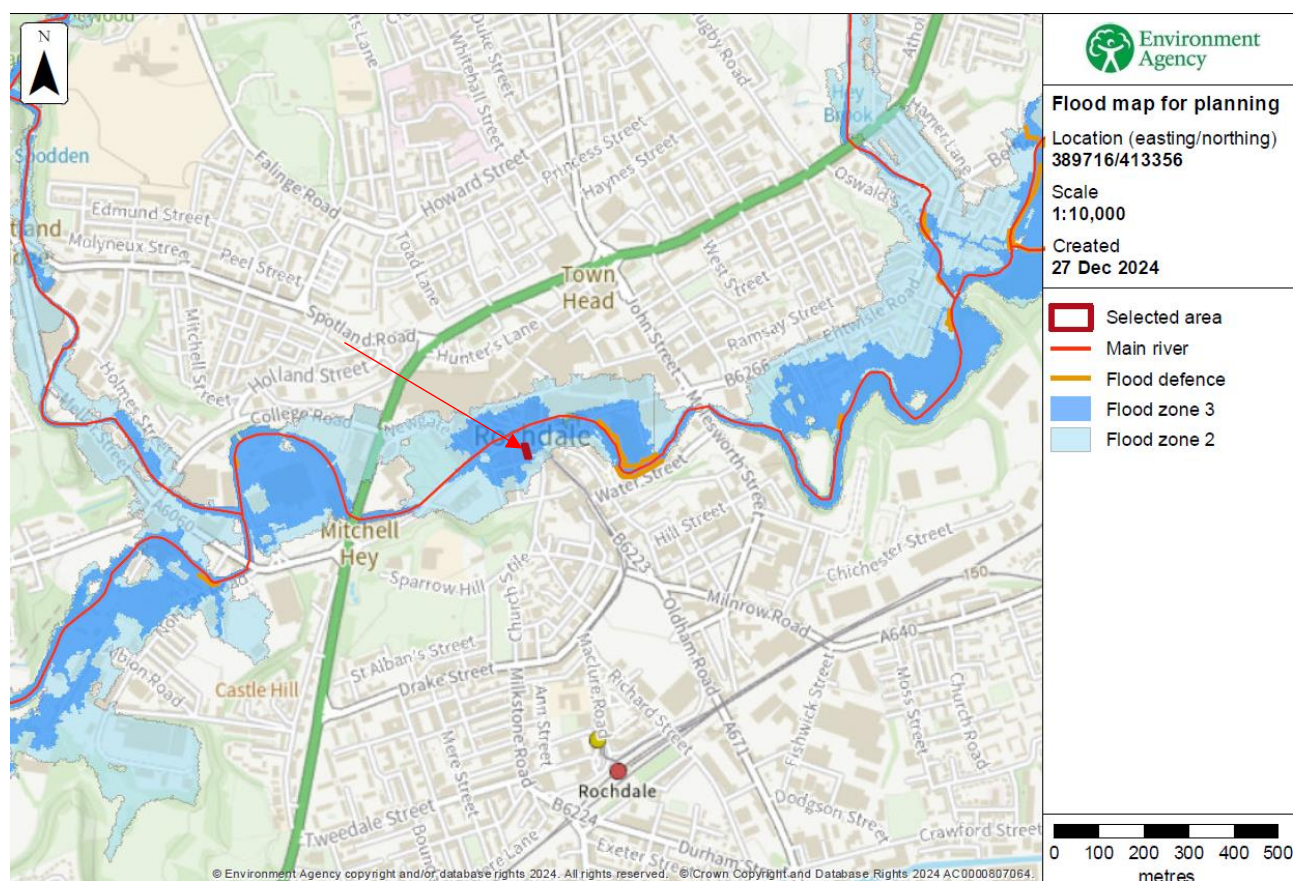
The existing building is served by foul & surface water drainage which connects into the public sewerage network. The planning proposal is for the renovation of an existing building at upper levels, so no additional surface water runoff will be generated as part of the development. There will be no loss of floodplain storage or no impediment to overland flood flow routes caused by the development.

FLOOD ZONE

The Planning Flood Map below shows that the site is located in Flood Zone 3. This means that Land within flood zone 3 has a high probability of flooding from rivers and the sea.

Flood zone 3 shows the area at risk of flooding for an undefended flood event with a:

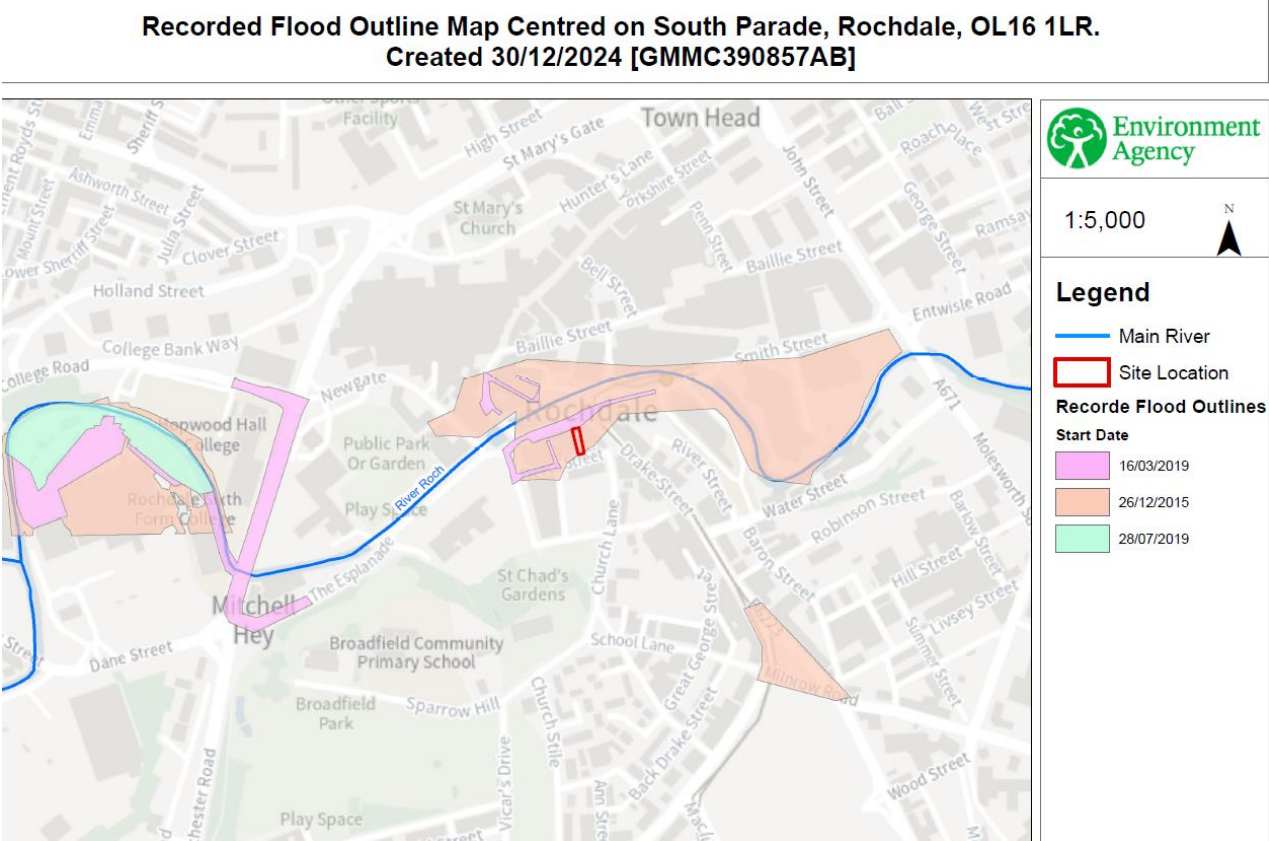
- 0.5% or greater probability of occurring in any year for flooding from the sea
- 1% or greater probability of occurring in any year for fluvial (river) flooding.



Above: The map shows the flood risk to the proposed site indicated in red and to the surrounding area, the site being within Food Zone 3.

Historic Flooding

This map is an indicative outline of areas that have previously flooded;



Recorded Flood Outlines

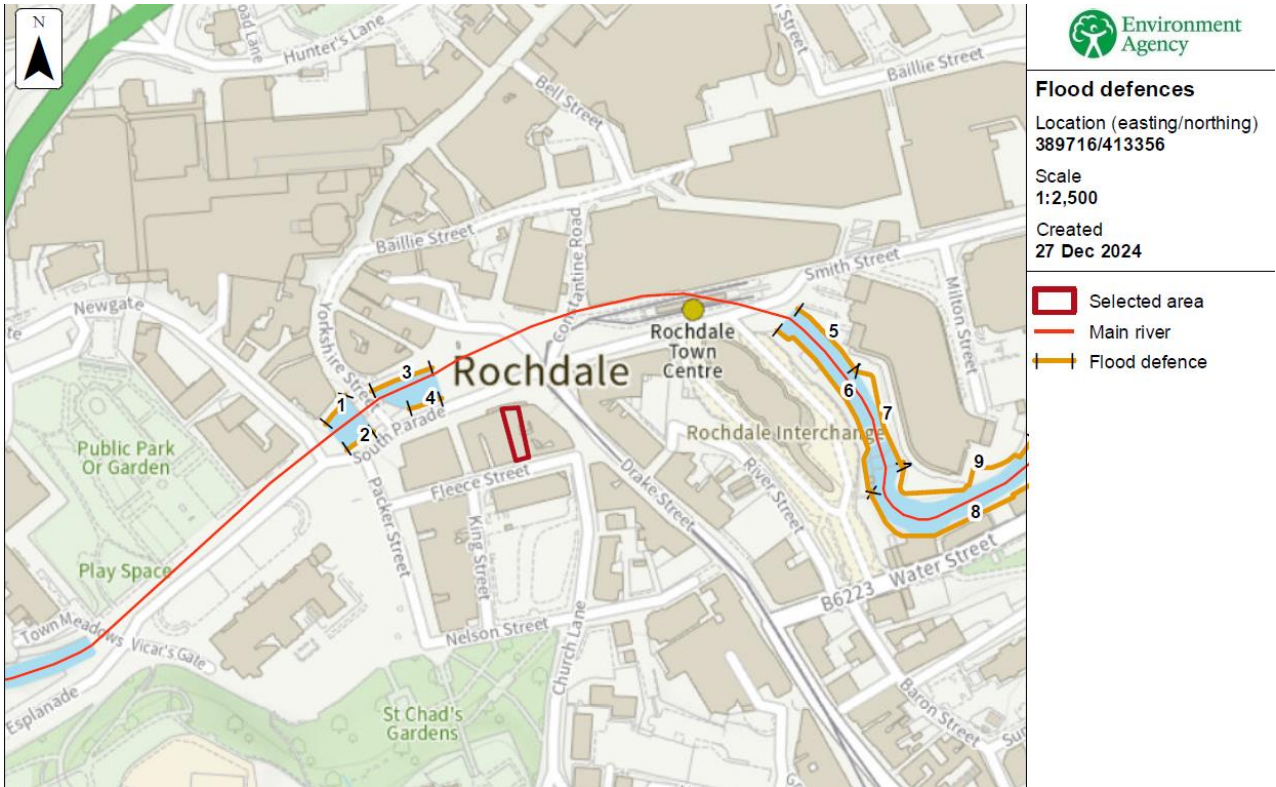
Flood Event Code	Name	Start Date	End Date	Source of Flooding	Cause of Flooding
4079733	Rochdale Town Centre	26/12/2015	26/12/2015	main river	channel capacity exceeded (no raised defences)
4079735	Rochdale Asda/College	26/12/2015	26/12/2015	unknown	unknown
4079741	Mellor Street	26/12/2015	26/12/2015	unknown	unknown
4085995	St.Marys Gate	16/03/2019	16/03/2019	drainage	local drainage/surface water
4085996	ASDA, Rochdale Town Centre	16/03/2019	16/03/2019	unknown	unknown
4086003	College Road	16/03/2019	16/03/2019	drainage	local drainage/surface water
4086005	Yorkshire Street	16/03/2019	16/03/2019	drainage	local drainage/surface water
4086006	South Parade	16/03/2019	16/03/2019	drainage	local drainage/surface water
4087059	ROCH	28/07/2019	31/07/2019	main river	channel capacity exceeded (no raised defences)

It is difficult to predict exactly how long it would take for water to reach the site following a breach as it is dependent on a number of factors, including the location and nature of the breach and the characteristics of any storm surge, but it is most likely to enter the site from the northern side which is closest to the river.

Flood Defences

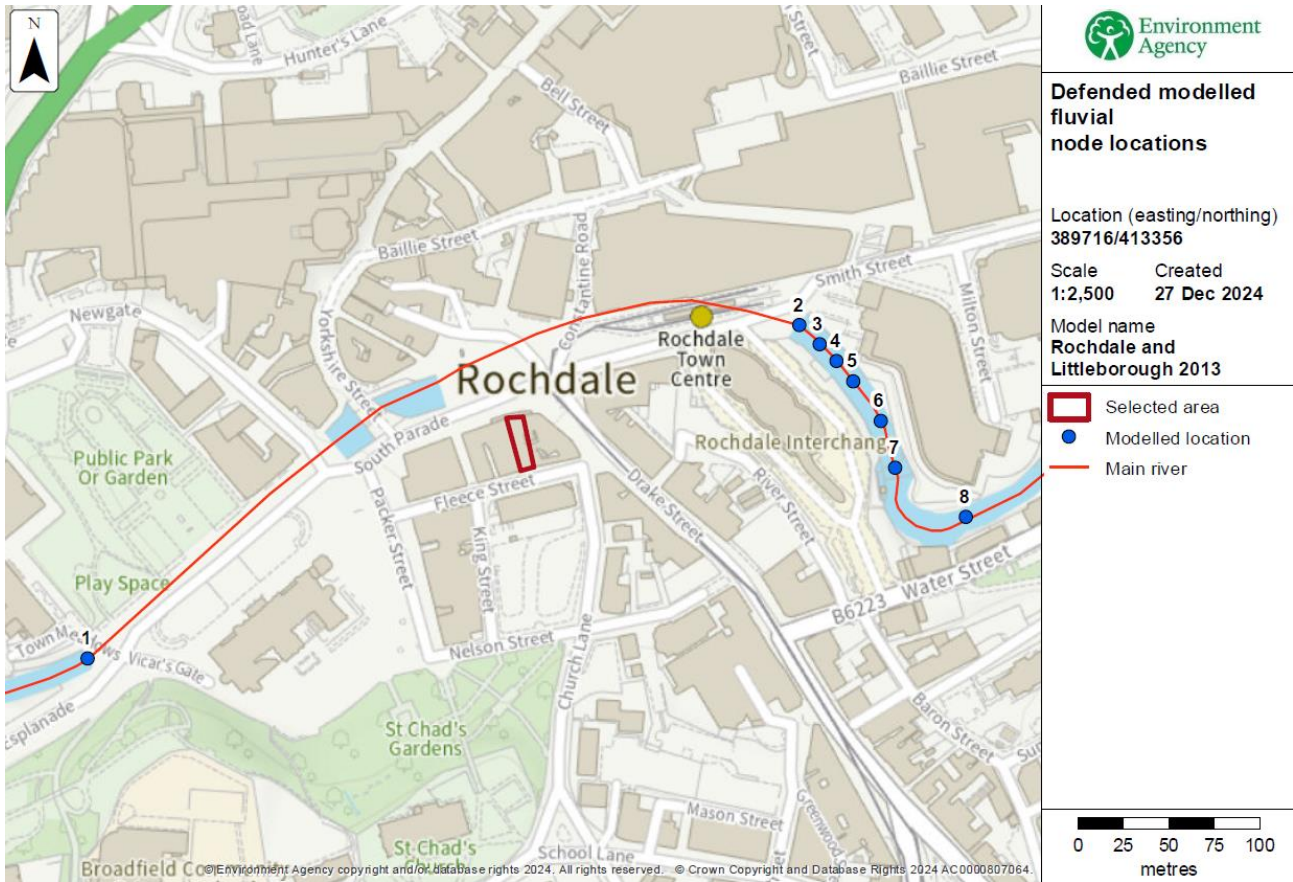
The flood defences map below shows the location of the flood defences present.

The flood defences data table shows the type of defences, their condition and the standard of protection. It shows the height above sea level of the top of the flood defence (crest level). The height is In mAOD which is the metres above the mean sea level at Newlyn, Cornwall.



Flood defences data

Label	Asset ID	Asset Type	Standard of protection (years)	Current condition	Downstream actual crest level (mAOD)	Upstream actual crest level (mAOD)	Effective crest level (mAOD)
1	477100	Wall			119.77	119.77	119.77
2	477101	Wall			120.20	120.20	120.20
3	477118	Wall			119.12	119.12	119.12
4	477099	Wall			119.44	119.44	119.44
5	104220	Engineered High Ground	100		119.97	119.60	
6	62723	Engineered High Ground	100		118.79	119.55	
7	90290	Engineered High Ground	100		120.84	120.79	
8	86366	Engineered High Ground	5		119.91	118.79	
9	67666	Engineered High Ground	100		119.61	120.89	



Flood defences data

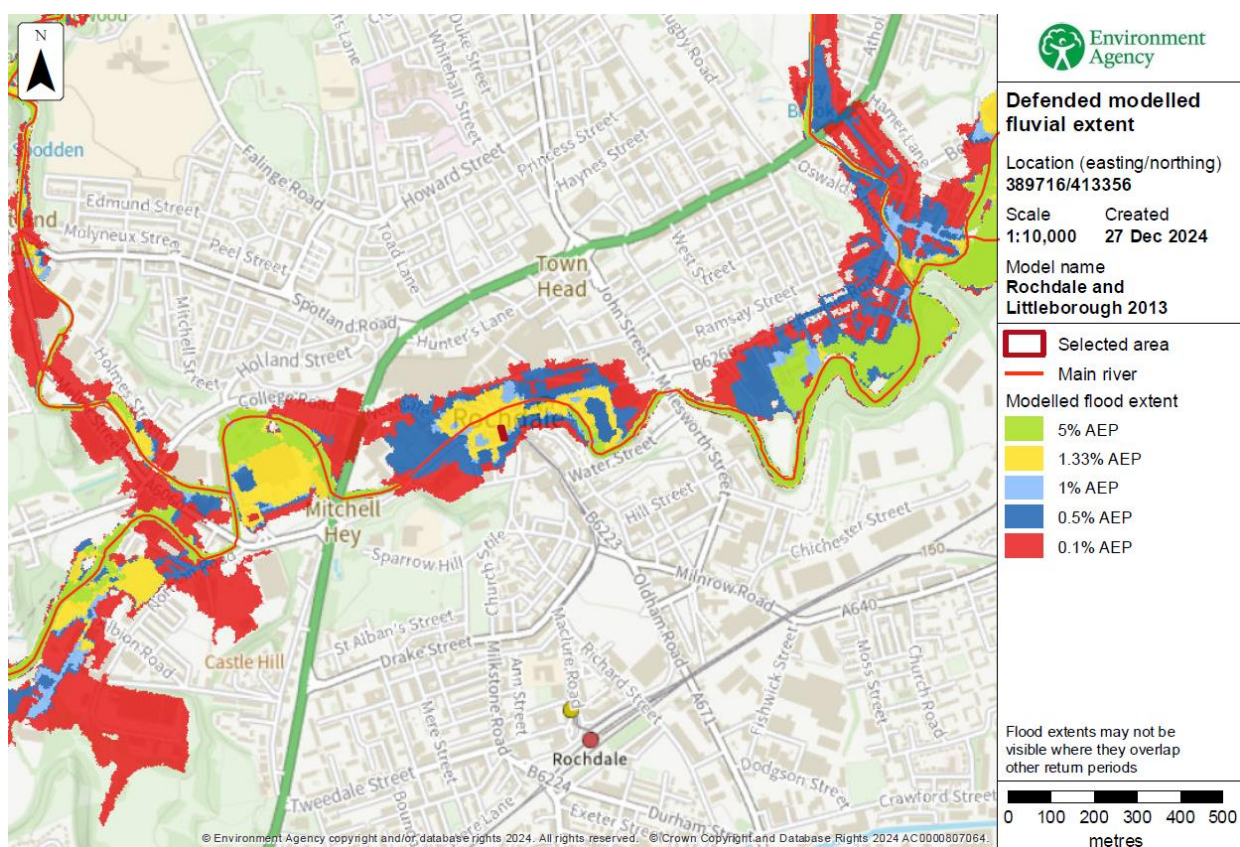
Label	Asset ID	Asset Type	Standard of protection (years)	Current condition	Downstream actual crest level (mAOD)	Upstream actual crest level (mAOD)	Effective crest level (mAOD)
1	532014	Engineered High Ground					
2	391032	Engineered High Ground			125.73	124.69	
3	129524	Wall	100		124.90	125.03	
4	70613	Wall	100		125.80	125.76	
5	70872	Wall	100		124.93	124.94	
6	70666	Engineered High Ground	100		124.03	122.56	
7	63745	Wall	100		123.86	123.86	
8	127800	Wall	100		123.60	123.52	
9	762057	Wall	100		123.60	123.52	

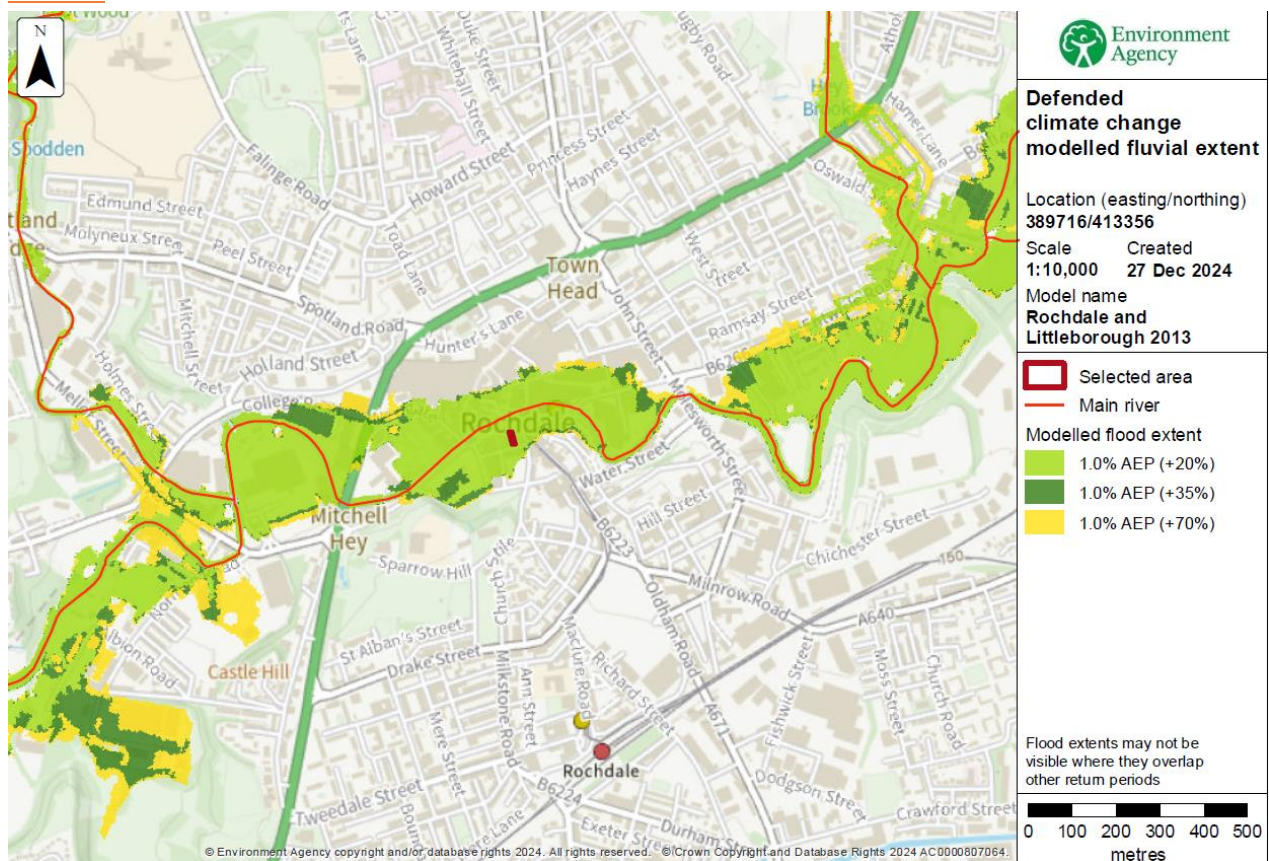
Climate Change

The following scenarios are included in the map below:

- Defended modelled fluvial: risk of flooding from rivers where there are flood defences

- Defences removed modelled fluvial: risk of flooding from rivers where flood defences have been removed
- Defended climate change modelled fluvial: risk of flooding from rivers where there are flood defences, including estimated impact of climate change
- Defences removed climate change modelled fluvial: risk of flooding from rivers where flood defences have been removed, including estimated impact of climate change.





Potential sources of Flooding

Flood risk maps and flow/level data was obtained from the Environment Agency;

- Fluvial flooding from main rivers. Main source of river flooding is from the River Roch. The Development Site is within flood zone 3.
- Fluvial flooding from minor watercourses / drainage channels. Brooks/streams do not directly impact the development.
- Surface Water/Overland flow. Overland flow paths will not change as a result of the development.
- Springs and high groundwater levels. It is likely that ground water levels are controlled primarily by river levels in the local area and therefore present no more of a risk.
- Surcharging of local drainage & sewerage systems. The local area is not within a critical drainage area. Surcharging of the local sewerage system is not a risk.

f. Artificial Watercourse/Canals. The Rochdale Canal does run through the area but is approx. 800m to the N and does not impact the site.

The site has a High risk of surface water flooding which means that this area has a chance of flooding of greater than 3.3% each year. Surface water flooding is sometimes known as flash flooding. It happens when rainwater cannot drain away through normal drainage systems.

It's a problem because:

- it often happens in places you don't expect, like up hills.
- it's hard to predict, as heavy rain sometimes only affects a small part of an area.
- where there's lots of tarmac and concrete the water has nowhere to go.

FLOOD MITIGATION MEASURES

Safety of people inside the dwelling

Flood warnings should be taken into account, and it is almost inconceivable that a significant flood event could occur without the occupants of the premises being made aware through a combination of the Environment Agency flood warning service and national and local television and radio bulletins. In the case of a potential major event such as a 0.5% event, direct action will be taken by local government and the emergency services in accordance with existing emergency response plans.

The site is within the Environment Agency Flood Warning Area (refer to Plan in appendix). EA advice states that house owners/tenants within flood warning areas should sign up to receive flood alerts (via telephone & email). Those who want to sign up can use the following url: <https://www.gov.uk/sign-up-for-flood-warnings>. Another way to register is by calling Floodline on 0345 988 1188.

For evacuation details/centres the Local Planning Authority details are:

- Out of hours emergencies, 6pm-8am Monday-Friday and anytime weekends and Bank Holidays, 0300 303 8875.
- Public Protection Service Number One Riverside Smith Street Rochdale OL16 1XU
environmental.health@rochdale.gov.uk 0300 303 8871.

Evacuation

The existing evacuation routes during a flood event, are via Fleece Street to the rear and this connects with Drake Street to the south.

The main occupants of the dwelling are to be responsible for monitoring Environment Agency, Met Office and national flood warnings and evacuate the dwelling in the event of a high-risk warning.

The existing ground floor building itself will not be changed structurally from the existing situation, however the proposed first floor fit out can mitigate some effects, through flood resilience measures.

SUMMARY OF RISK

With the mitigation against flood hazard available through existing defences, flood warnings, emergency plans, and fit out design, the level of residual risk is small. Although the vulnerability of the area is recognised, the risk levels should not prevent the extension to be approved as proposed.

All residential flats are on the first & second floors, well above the 1%AEP/1:100yr flood level. Thus, in times of extreme flooding occupants will have a safe haven from flood water in their own apartments if required, or until rescue.

Should residents heed flood warnings, evacuation to Flood Zone 1 can be sought nominally 50m to the S of the building on Drake Street.

There is no material effect on the floodplain due to the proposed development. In addition, as surface water runoff is unchanged, there are no anticipated detrimental effects to upstream or downstream properties.