

FLOOD RISK ASSESSMENT

57 Uttoxeter Old Road, Derby, DE1 1NG

Planning Application: 26/01031/FUL

Proposal: Change of use of existing ground-floor denture studio (Use Class E) and first-floor residential accommodation (Use Class C3) to form four self-contained one-bedroom flats (Use Class C3).

1. Introduction

This Flood Risk Assessment has been prepared in support of the proposed redevelopment of the existing building at 57 Uttoxeter Old Road, Derby.

The assessment has been prepared following advice received from Derby City Council's Drainage & Flood Risk Management Team dated 17 August 2026.

The proposal principally comprises the conversion and re-use of the existing building, together with the construction of a two-storey side extension. The extension represents a relatively limited increase in the developed footprint of the site. The development incorporates measures to manage surface-water runoff and improve the flood resistance and resilience of the completed building.

The purpose of this assessment is to consider the identified sources of flood risk and demonstrate the proportionate measures incorporated into the development to improve flood resistance and resilience, manage surface-water runoff and provide an appropriate emergency response for future occupants.

2. Existing Site and Proposed Development

The application site comprises an existing two-storey building at 57 Uttoxeter Old Road.

The existing building accommodates a denture studio at ground-floor level with residential accommodation above. Planning permission is sought for its conversion and extension to provide four self-contained one-bedroom flats.

The proposal makes substantial use of the existing building, together with a two-storey side extension which results in a limited increase in the developed footprint.

The external layout has been designed without private car parking. The remaining external area provides cycle and refuse storage together with new tree planting and an area of permeable geocell gravel surfacing. These measures avoid unnecessary impermeable vehicle hardstanding and provide opportunities to assist with surface-water management.

The site slopes around the existing building, resulting in differing relationships between proposed internal floor level and adjacent external ground.

At the lower side of the site, the proposed ground-floor level is approximately 381mm above adjacent external ground level. At the higher side of the site, adjacent external ground is approximately 360mm above internal floor level at the most constrained location.

The proposed works include alterations to the existing floor construction in parts of the ground floor, including raising floor levels where appropriate.

3. Identified Flood Risk

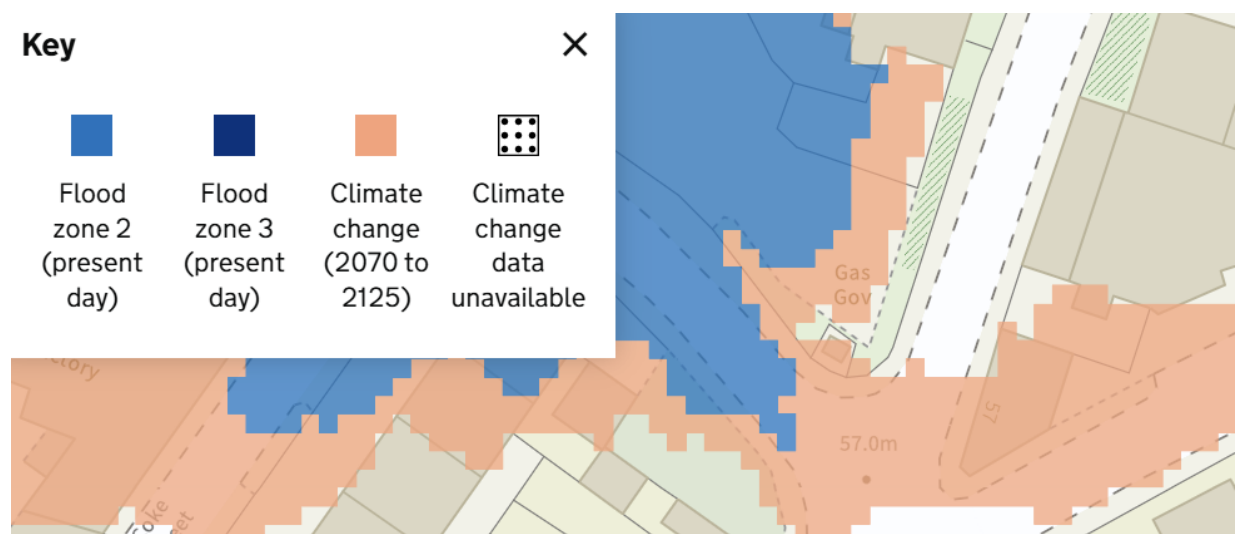
3.1 River Flooding

The Government Flood Map for Planning does not identify the application building itself as lying within the currently mapped Flood Zones 2 or 3.

However, Derby City Council's Strategic Flood Risk Assessment contains more detailed and localised modelling which identifies flood risk affecting the vicinity of the site.

The Council's Drainage & Flood Risk Management Team has therefore requested that the potential flood risk is considered through a proportionate site-specific Flood Risk Assessment.

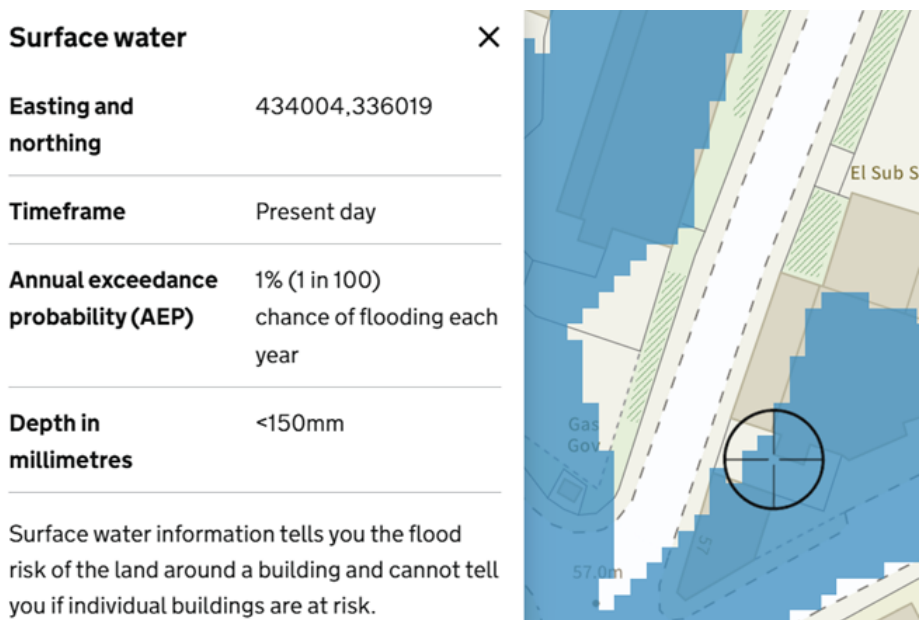
[FIGURE 1 – RIVER FLOODING INFORMATION PROVIDED BY DERBY CITY COUNCIL]



3.2 Surface Water Flooding

Information supplied by Derby City Council identifies potential surface-water flooding affecting the vicinity of the application site.

The supplied mapping identifies a 1% Annual Exceedance Probability (AEP), equivalent to a 1-in-100 annual chance event, with a modelled surface-water flood depth of less than 150mm at the location identified.



[FIGURE 2 – SURFACE WATER FLOODING INFORMATION PROVIDED BY DERBY CITY COUNCIL]

The identified modelled depth should also be considered against the physical levels of the existing building. At the lower side of the site, the proposed internal ground-floor level is approximately 381mm above adjacent external ground level, providing a significant level difference relative to the modelled surface-water depth.

The site does, however, slope and external ground levels on the higher side rise above the internal floor level. Flood resistance and resilience measures are therefore proposed rather than relying solely upon finished floor levels for protection.

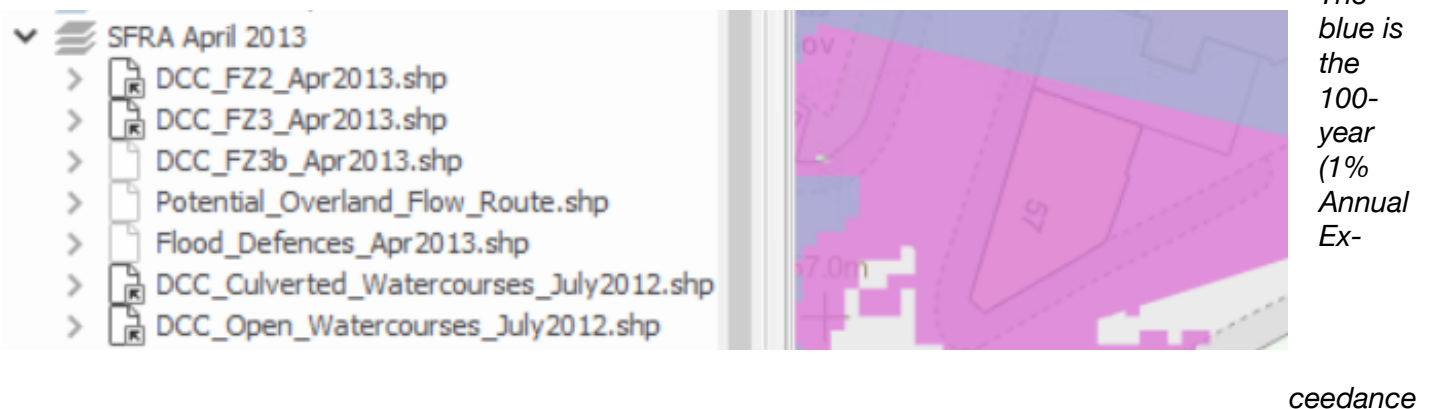
3.3 Derby City Council Strategic Flood Risk Assessment

The information supplied by Derby City Council includes extracts from the Council's Strategic Flood Risk Assessment. This identifies the modelled:

- * 100-year / 1% AEP event; and
- * 1,000-year / 0.1% AEP event.

These localised modelling results have informed the resilience measures proposed within this assessment.

[FIGURE 3 – DERBY CITY COUNCIL SFRA 1% AND 0.1% AEP MAPPING]



Probability (AEP) event and the pink is the 1,000-year (0.1% AEP) event.

4. Flood Resistance and Resilience

A proportionate package of flood resistance and resilience measures will be incorporated as part of the proposed conversion and extension works.

4.1 Drainage

Non-return valves will be incorporated into appropriate drainage connections serving the development, where technically appropriate, to reduce the potential for flood water or surcharge from the drainage system to enter the building.

The detailed location and specification of valves will be confirmed as part of the Building Regulations/construction stage.

4.2 External Doors and Thresholds

External doors and vulnerable thresholds will incorporate flood-resistant/resilient detailing appropriate to their location.

Particular consideration will be given to openings on the higher side of the site, where external ground levels rise relative to the internal ground-floor level.

Thresholds, seals and associated detailing will be selected to reduce the likelihood of shallow surface water entering the premises.

4.3 Internal Wall Construction

The existing external walls are to be internally lined as part of the conversion works.

At ground-floor level, plasterboard linings will, where reasonably practicable, be installed with horizontal board joints. This will allow lower sections of wall lining to be removed and replaced independently in the event that flood water enters the building, reducing the extent of repair and replacement works following a flood event.

Insulation and internal wall build-ups at vulnerable locations will be selected with consideration to flood resilience where reasonably practicable.

4.4 Services

Where reasonably practicable, vulnerable electrical and building services associated with the ground-floor accommodation will be positioned above low level.

Electrical sockets, controls and other vulnerable components will be positioned to reduce susceptibility to shallow flooding where this can be achieved without compromising normal accessibility and Building Regulations requirements.

5. Rainwater Management and Harvesting

The existing building directly adjoins the public pavement along part of the Uttoxeter Old Road frontage. It is therefore not physically practicable to provide water butts to rainwater pipes along this elevation without obstructing the public highway.

Rainwater harvesting will instead be provided at a suitable rainwater downpipe within the private external area adjacent to the proposed bin and cycle storage area.

A water butt/rainwater harvesting container will be installed at this location to intercept and store roof runoff for subsequent re-use, including watering of the proposed landscaping.

Given the physical constraints of the retained building, its direct relationship with the public pavement and the limited private external area available, this represents a proportionate rainwater harvesting measure for the development.

6. Surface-Water Runoff and Attenuation

The proposal includes a limited increase in the building footprint associated with the proposed two-storey side extension.

The revised external arrangement does not provide private car parking. This avoids the need to introduce additional extensive impermeable hardstanding specifically for vehicle parking.

Within the external cycle and refuse storage area, the development will incorporate new tree planting together with an area of permeable geocell gravel surfacing.

The permeable surfacing will assist with surface-water management by allowing rainfall to pass through the surface rather than immediately contributing to surface-water runoff. The new tree planting will provide additional interception of rainfall and contribute to the landscaped character of the external area.

The precise behaviour of surface water below the permeable surfacing will depend upon existing ground conditions and the underlying construction. The proposal therefore does not rely solely upon infiltration into the underlying ground as a means of managing flood risk.

A rainwater harvesting water butt will additionally be connected to a suitable rainwater downpipe within the private external area, providing storage and re-use of a proportion of roof runoff.

The combination of:

- * permeable geocell gravel surfacing;
- * new tree planting;
- * avoidance of additional car-parking hardstanding; and
- * rainwater harvesting

provides a proportionate surface-water management response to the limited increase in building footprint associated with the proposed extension.

7. Emergency Flood Response

Future occupants will be made aware that localised flood risk has been identified within the vicinity of the site.

An appropriate emergency response will therefore form part of the management of the residential development.

Residents will be advised to:

- * register for and monitor relevant Environment Agency flood warnings and local weather warnings where available;
- * remain alert during periods of prolonged or exceptionally heavy rainfall;
- * maintain a basic emergency/flood kit containing essential medication, identification, mobile telephone/charger, torch and other necessary items;
- * avoid walking or driving through flood water;
- * where safe to do so, isolate vulnerable electrical equipment in the event of imminent flooding; and
- * follow advice issued by the emergency services and relevant authorities.

Where flooding occurs or is forecast, occupants should not attempt to evacuate through flood water.

Occupants of upper-floor accommodation may remain at the upper level where this represents the safest course of action.

Occupants of ground-floor accommodation should evacuate to a safe location before access routes become affected, where sufficient warning is available. If safe evacuation is no longer possible, occupants should remain within the safest available part of the building and follow instructions from the emergency services rather than entering flood water.

The flood-response information will be made available to future occupants as part of the management/occupier information for the development.

8. Residual Risk

It is recognised that no development can eliminate all residual flood risk.

The identified surface-water modelling indicates shallow flooding of less than 150mm at the location identified by the Council. The proposed development responds to this through a combination of resistance, resilience, rainwater management, permeable surfacing, landscaping and emergency planning measures.

The proposal predominantly comprises the conversion and re-use of an existing building, together with a relatively limited two-storey side extension. The associated increase in developed footprint is addressed through proportionate surface-water management measures incorporated within the external works.

At the lower side of the building, the proposed finished ground-floor level is approximately 381mm above adjacent external ground. On the higher side, where the relationship between external ground and internal floor level is less favourable, specific resistance and resilience measures are proposed.

The development does not rely solely upon finished floor levels as a means of protection. Flood-resistant/resilient door and threshold detailing, non-return valves, consideration of internal finishes and services, rainwater harvesting and external surface-water measures collectively reduce the potential consequences of the identified flood risk.

9. Conclusion

This Flood Risk Assessment has considered the flood-risk information supplied by Derby City Council's Drainage & Flood Risk Management Team, including river flooding, surface-water flooding and the Council's Strategic Flood Risk Assessment modelling.

The development incorporates a proportionate package of measures comprising:

- * flood-resistant/resilient external door and threshold detailing;
- * non-return valves to appropriate drainage connections;
- * flood-resilient internal construction where practicable;
- * appropriate positioning of vulnerable services;
- * rainwater harvesting;
- * permeable geocell gravel surfacing;
- * new tree planting to assist with interception and surface-water management; and
- * an emergency flood-response strategy for future occupants.

The proposal makes substantial use of the existing building together with a limited two-storey side extension. The development has been designed to respond appropriately to the identified flood risk through a combination of resistance, resilience and surface-water management measures.

The proposed external layout avoids additional car-parking hardstanding and incorporates permeable surfacing, landscaping and rainwater harvesting to assist in managing runoff associated with the development.

It is therefore considered that the identified flood risk can be appropriately managed for the lifetime of the proposed development and that the proposed conversion and extension are acceptable in flood-risk terms.