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Flood Risk Assessment

The Nook, Ancton Lane, Middleton, PO22 6NN

Construction of a single-storey rear/side infill extension adjoining the existing conservatory, replacement of the existing conservatory roof with a new lightweight pitched roof incorporating two rooflights, and associated external alterations.

1. Introduction

This Flood Risk Assessment has been prepared in support of a householder planning application for proposed alterations and a modest extension to the existing dwelling at The Nook, Ancton Lane, Middleton-on-Sea, PO22 6NN.

The proposal comprises the construction of a small single-storey infill extension alongside the existing rear conservatory, together with replacement of the existing conservatory roof with a new lightweight mono-pitched roof incorporating two rooflights.

The new infill extension occupies a narrow area between the existing conservatory and the neighbouring property. The submitted drawings indicate that this area has previously accommodated ancillary development and is currently finished principally with permeable gravel.

The proposal remains entirely ancillary to the existing residential dwelling. It does not create an additional dwelling, increase the number of bedrooms or materially intensify the residential use of the site.

The purpose of this assessment is to consider the potential sources of flood risk affecting the site, demonstrate that the proposed development can remain safe throughout its lifetime and confirm that the development will not increase flood risk elsewhere.

The detailed management of surface water is considered separately within the accompanying Lidsey Drainage Impact Assessment and Surface Water Drainage Information (Drainage Strategy).

2. Site Description

The application site comprises an existing two-storey residential dwelling known as The Nook, together with an existing rear conservatory, associated domestic garden and residential curtilage.

The proposed works are confined to the established residential property.

The submitted plans show the proposed extension occupying the narrow area immediately adjoining the existing conservatory, with the existing conservatory retained and incorporated into the altered ground-floor arrangement.

The proposed development does not involve:

- the creation of an additional dwelling;
- a change in the established residential use;
- any additional bedrooms;
- a basement;
- significant lowering of existing ground levels; or
- substantial new external hardstanding.

The external garden level immediately outside the dwelling is approximately 225 mm below the internal finished floor level.

Figure 1 – Site Location Map



The application site at The Nook, Ancton Lane, Middleton-on-Sea is identified by the red outline.

3. Flood Risk Classification

The site lies within Flood Zone 1.

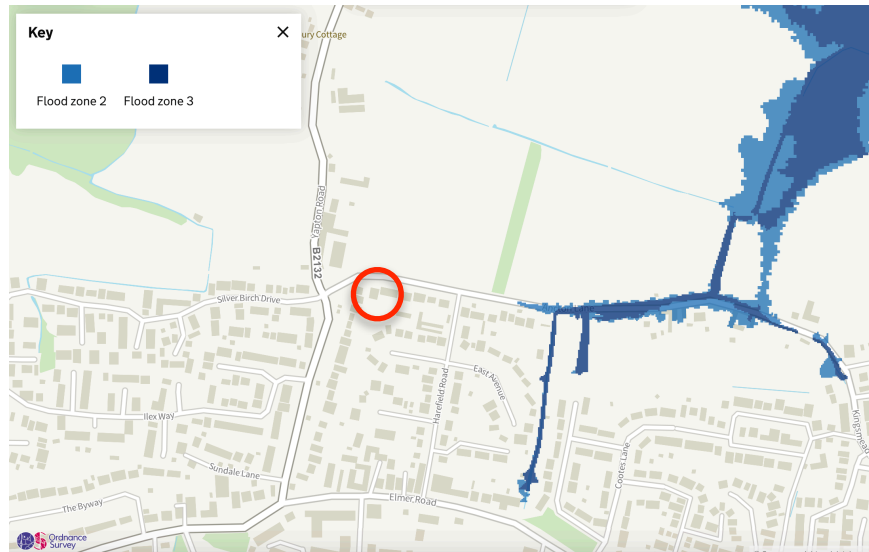
Flood Zone 1 represents land having the lowest probability of flooding from rivers and the sea. Current Environment Agency guidance identifies Flood Zone 1 as having a less than 0.1% annual probability of river or sea flooding.

The flood-risk information obtained for the property also identifies:

- a very low risk of flooding from rivers and the sea;
- a very low risk of surface-water flooding;
- the property as being outside a groundwater flood alert area; and
- flooding from reservoirs as unlikely.

The applicants are not aware of any history of flooding or persistent standing-water problems within the rear garden.

Figure 2 – Environment Agency Flood Map Extract



The flood mapping confirms the site's location within Flood Zone 1.

4. Proposed Development and Flood Vulnerability

The property is currently in residential use and will remain a single residential dwelling following completion of the proposed works.

The development comprises a minor householder extension and alterations to an existing dwelling rather than the introduction of new residential development onto previously undeveloped land.

The development does not increase the number of bedrooms or the anticipated number of occupants.

The principal new built element is an infill extension with a roof area of approximately 2.5 m².

The remainder of the roof works principally comprise replacement of the existing conservatory roof over its established footprint and consequently do not represent a corresponding increase in developed or impermeable area.

The scale and nature of the development therefore do not materially alter the existing flood vulnerability of the site.

5. Finished Floor Levels

The finished internal floor level of the new extension will be set to match the existing ground-floor level of the dwelling.

No lowering of the existing internal floor level is proposed.

The adjoining external garden level is approximately 225 mm below the internal finished floor level, providing a physical level difference between the internal accommodation and the surrounding garden.

Maintaining the extension at the established internal level avoids creating a new low point within the dwelling and provides a sensible and proportionate approach to flood resilience for this small householder development within Flood Zone 1.

6. Flooding from Rivers and the Sea

The site lies within Flood Zone 1 and the available flood information identifies the risk of flooding from rivers and the sea as very low.

The proposed development is confined to the existing residential curtilage and does not affect any watercourse, flood defence or recognised flood-storage area.

There is consequently no evidence to indicate that the small-scale extension would be subject to a material risk of fluvial or tidal flooding.

7. Surface-Water Flood Risk

The available flood information identifies the site as being at very low risk from surface-water flooding.

The proposal creates only approximately 2.5 m² of additional impermeable roof area.

This new roof replaces an area which is currently permeable gravel. No new patio, driveway or other impermeable external hardstanding is proposed as part of the development.

The replacement roof over the existing conservatory occupies an established roof footprint and will continue to utilise its existing rainwater drainage arrangement.

Runoff from the additional roof area will be managed separately within the application site through a new infiltration arrangement.

The detailed surface-water drainage design, including the proposed soakaway system, design rainfall event, climate-change allowance, storage provision and maintenance requirements, is set out separately within the accompanying Lidsey Drainage Impact Assessment and Surface Water Drainage Information (Drainage Strategy).

Keeping the detailed drainage design within that separate document allows any subsequent detailed drainage adjustments to be made without altering the conclusions of this Flood Risk Assessment.

8. Groundwater Flood Risk

The available flood-risk information indicates that the property is not situated within a groundwater flood alert area.

The development does not include a basement, substantial below-ground accommodation or lowering of the existing floor level.

The relatively modest foundations and drainage works associated with the proposal are therefore not anticipated to introduce any significant additional vulnerability to groundwater flooding.

The suitability of infiltration drainage will nevertheless be confirmed having regard to actual ground conditions as part of the detailed drainage design.

9. Reservoir Flood Risk

The available flood-risk information identifies flooding from reservoirs at the property as unlikely.

The proposal does not materially alter the existing site's vulnerability to this source of flooding.

10. Lidsey Treatment Catchment

The property lies within the Lidsey Wastewater Treatment Works catchment area.

This catchment designation is considered separately from the site's Flood Zone 1 classification and has principally informed the proposed approach to foul and surface-water management.

The proposal does not result in an additional dwelling, additional bedrooms or an anticipated increase in residential occupancy.

The new WC and hand-washing basin and the relocated washing machine will connect to the existing foul drainage system serving the dwelling.

As there is no material intensification of the residential use, the development is not anticipated to result in a material increase in foul-water loading arising from occupancy.

Surface-water management and the implications of the proposal for the Lidsey catchment are addressed in detail within the separate Lidsey Drainage Impact Assessment and Surface Water Drainage Information (Drainage Strategy).

11. Flood Risk Elsewhere

An important principle of the development is that it should not increase flood risk elsewhere.

The proposal creates only approximately 2.5 m² of additional impermeable roof area and introduces no additional impermeable patio or hardstanding.

Surface water generated by this additional roof area will be managed within the site through a separate infiltration system rather than being allowed to discharge uncontrolled onto neighbouring land.

The replacement conservatory roof does not represent an additional impermeable footprint.

The garden surrounding the proposed development remains available as permeable domestic garden.

Detailed surface-water management measures are provided separately within the accompanying drainage strategy.

On this basis, the proposed development is not expected to increase surface-water runoff or flood risk to neighbouring land or the wider drainage catchment.

12. Safe Access and Occupation

The development does not alter the existing pedestrian or vehicular access arrangements serving the dwelling.

The site lies within Flood Zone 1 and the available information identifies very low risk from both rivers and the sea and from surface water.

No additional dwelling or separate residential accommodation is proposed.

The existing dwelling also retains first-floor accommodation.

Given the low level of identified flood risk, the established residential use and the very limited scale of the proposed development, the property is considered capable of remaining safely occupied throughout the lifetime of the development.

13. Sequential and Exception Tests

The development comprises a householder extension and alterations to an existing dwelling.

Current Environment Agency standing advice expressly identifies householder development, including residential extensions and conservatories, as exempt from the Sequential Test.

In addition, the site is within Flood Zone 1.

The Sequential Test is therefore not required for this proposal.

The Exception Test is similarly not required. National planning guidance identifies Flood Zone 1 as suitable for all flood-risk vulnerability classifications, subject to consideration of other sources of flooding and ensuring that development does not increase flood risk elsewhere.

14. Residual Risk and Climate Change

The available information demonstrates that the site is at a low level of flood risk.

Nevertheless, as with any development, a residual risk associated with exceptional rainfall events cannot be completely eliminated.

The proposal responds proportionately to this residual risk by:

- maintaining the new extension floor at the existing internal finished floor level;
- retaining an external garden level approximately 225 mm below the internal floor;
- avoiding the creation of substantial additional impermeable surfaces;
- managing runoff from the new roof area within the site;

- retaining substantial permeable garden area; and
- avoiding any basement or lowering of internal accommodation.

The detailed drainage strategy will also take account of the appropriate design rainfall event and current climate-change allowance.

This provides a proportionate response to potential future rainfall conditions without unnecessarily over-engineering a very small householder extension within Flood Zone 1.

15. Conclusion

The Nook lies within Flood Zone 1, representing the lowest category of flood risk from rivers and the sea.

The available flood information identifies the property as having a very low risk of flooding from rivers and the sea and from surface water, being outside a groundwater flood alert area, with reservoir flooding considered unlikely.

The proposal comprises a modest householder development to an established residential property.

It does not create an additional dwelling, increase the number of bedrooms or materially increase residential occupancy.

The new extension will maintain the established internal finished floor level, approximately 225 mm above the adjoining external garden level.

Only approximately 2.5 m² of additional impermeable roof area is created and no new impermeable patio or hardstanding is proposed. Surface water from this additional roof area will be managed within the application site in accordance with the separate drainage strategy.

The development is not anticipated to increase flood risk elsewhere and does not materially alter the flood vulnerability of the existing property.

The proposal is therefore considered capable of remaining safe for its lifetime and represents an appropriate form of minor householder development having regard to flood risk.