Flood Risk Note for Sawbridgeworth Evangelical and Congregational Church Building Project

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3D visualization of proposed development

Contents

1 Introduction

Sawbridgeworth Evangelical and Congregational Church (SECC) is situated on London Road in Sawbridgeworth and was built in 1862. The address of the property is:

Sawbridgeworth Evangelical and Congregational Church, London Road, Sawbridgeworth, Herts., CM21 9EH.

In 1911, a School Block was built alongside the church on the north side. A Kitchen and Toilet block was built behind the School Block in 1972. A store room was added in 1993 as an infill building between the Church Hall and the Kitchen Block (connecting to both buildings)

The members of the church along with the Trustees of the church are now seeking to make a significant refurbishment of the church sanctuary and church hall area as well as demolishing the School Block and Kitchen Toilet Block to make way for a new annex for the church as it moves forward in its ministries and outreach into the community.

2 Planning Policy Summary

The relevant National Planning Policy Framework 2023 clauses relating to flooding are clauses 165 to 175 and are detailed in Appendix A for convenience.

The East Herts District Council Plan 2018 Section 23.2 details requirements to mitigate flooding and development requirements. Section 23.2 is reproduced in Appendix B for convenience.

Key appendices from the East Hertfordshire Strategic Flood Risk Assessment detailing the Historical Flood Map for Sawbridgeworth, Flood Zones for Sawbridgeworth, Climate Change Impact Map for Sawbridgeworth, Surface Water Flooding Extent Map and the Ground Water Flooding Map are reproduced in Appendix C for convenience. These have been taken from the Evidence Base website.

The results of a search on the Environment Agency Flood Map are included in Appendix D.

The East Hertfordshire Council Plan has a flood risk management approach detailed as WAT1 (reproduced in Appendix B). This can be summarized as follows:

(a) Protect the floodplain from inappropriate development
(b) Developments should neither increase the likelihood or intensity of any form of flooding both on-site and to neighbouring land
(c) Developments should take into account the impact of climate change and build in long term resilience against increased water levels
(d) Steer new developments to areas of lowest probability of flooding

3 Existing Situation

3.1 Church Location and Key Distances

SECC is located on London Road in Sawbridgeworth which a main throughfare in the town. The location of the church site is shown on the map below. With respect to key flood areas and zones, it is situated as follows:

(a) Approximately 170 m to nearest waterway (The Brook) south of the church
(b) The church site is elevated approximately 9 m above The Brook
    a. The Brook is ~54 m elevation
    b. SEC Church is ~63 m elevation

The Environment Agency Flood Map search (Appendix D) shows that the SEC Church site is in Flood Zone 1 and that the site is 0.33 ha in total. This would imply that a site specific flood risk assessment is not required.

Figure 1 Location of SECC on London Road, Sawbridgeworth. Map data from OpenStreetMap 2023-12-03.

Fluvial Flooding

Review of the Evidence Base maps (Appendix C) shows that the SEC Church site is well outside of known flood areas even after taking climate change impact into account.

Surface Water Flooding

The Surface Water Flooding Map (Appendix D/Section 8.4) does indicate that the back of the SEC Church site may be on the edge of a 1000-year surface water flooding event. This would appear to be

at the back of the site that is used as graveyard. The burial ground area is now full, and no further burials take place in graveyard. No known flooding events have taken place within living memory.

Groundwater Flooding

Appendix E indicates that there is a >25% and <50% possibility of ground water flooding. A search has carried out for underground water courses in the proposed area to be excavated. No underground streams were identified. Also, there have been no incidences of groundwater flooding on the site within living memory.

All of these data points indicate that Flood Zone 1 is appropriate for the site and that a site specific flood risk assessment is not required.

This development does not include any change of use or intensification of the site so it will not increase the vulnerability of the site but is rather a replacement building for the same use.

3.2 Current Buildings

The current church and hall were built in 1862. It is built in early English style with styling and details taken from churches designed by A W Pugin and S S Teulon and constructed by a local builder. The church has been updated internally at several different times to install a pipe organ, add water-based heating and radiators, install electric lighting, move the pipe organ and remove choir stalls, replace the church hall flooring, install a modern radiator based central heating system in the church hall, remove some pews to improve disabled access along with other minor improvements.

In 1911, a School Block was built alongside the church on the north side. A Kitchen and Toilet block was built behind the School Block in 1972. A store room was added in 1993 as an infill building between the Church Hall and the Kitchen Block (connecting to both buildings). The School Block has several issues that very difficult to resolve such as rising damp, penetrating damp (due to 9" wall construction) and no accessibility for disabled people. The roof is also close to end of life. Whilst some of these issues could be addressed at some expense, there would be on-going issues with penetrating damp and the issue of accessibility is hard to address within the existing building. Developing a new building with greatly improved energy efficiency and accessibility designed in is deemed to be a better approach.

The current buildings extend across most of the frontage of the site. Access to the rear of the site by vehicle is not possible as the buildings on the north of the site extend to the boundary line and the narrowest pint of the passageway on the south side of the site is less than approximately 2 metres.

Figure 2 Frontage of SEC Church on London Road.

The parking area at the front of the site is tarmacked with no surface water drainage included in the tarmacked area.

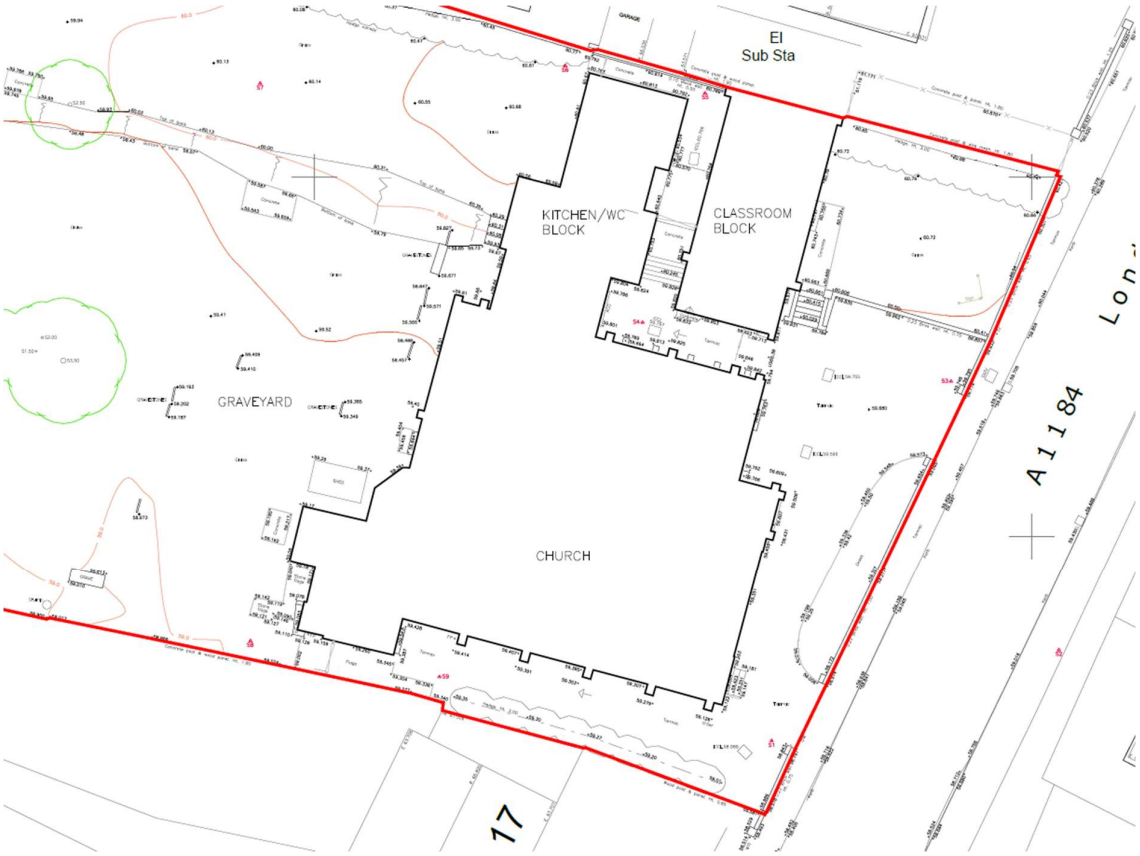


Figure 3 Existing site plan.

4 Proposed Situation

4.1 Building Changes

The planning application submitted involves a phased redevelopment of the site. Phase 1 is refurbishment of the existing sanctuary and hall to form a larger, more contiguous and flexible space that is suited to modern worship styles and church activities. Phase 2 is demolition of the existing School Block and Kitchen Block and replacing them with a new Entrance Area, Hall and Kitchen that is more accessible and useable then the current buildings.

The new annex is considered a redevelopment of the site where buildings already exist and is therefore not a greenfield development.

Figure 4 Proposed east elevation (road frontage) of SEC Church with new annex.

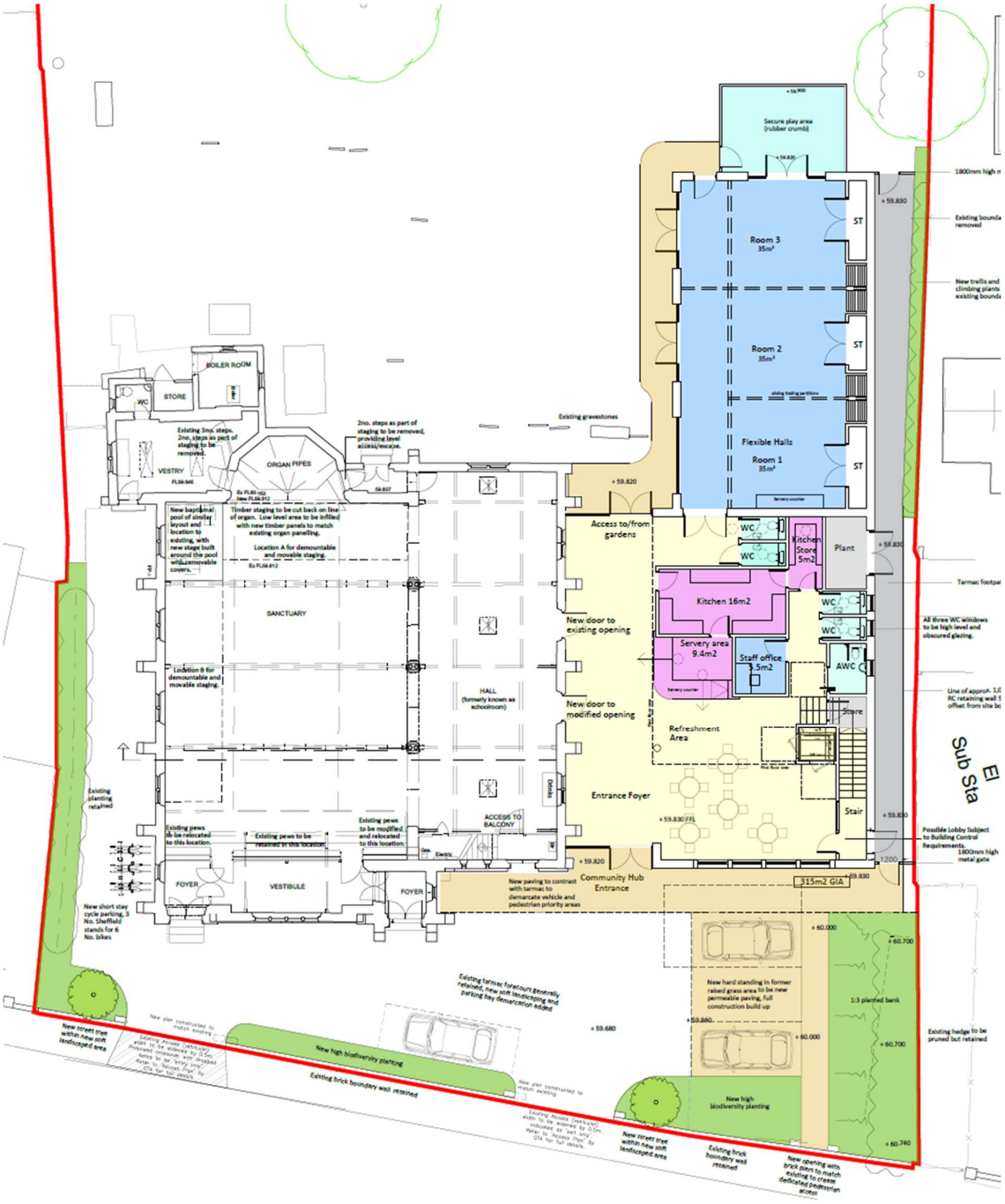


Figure 5 Proposed ground floor plan of SEC Church with new annex.

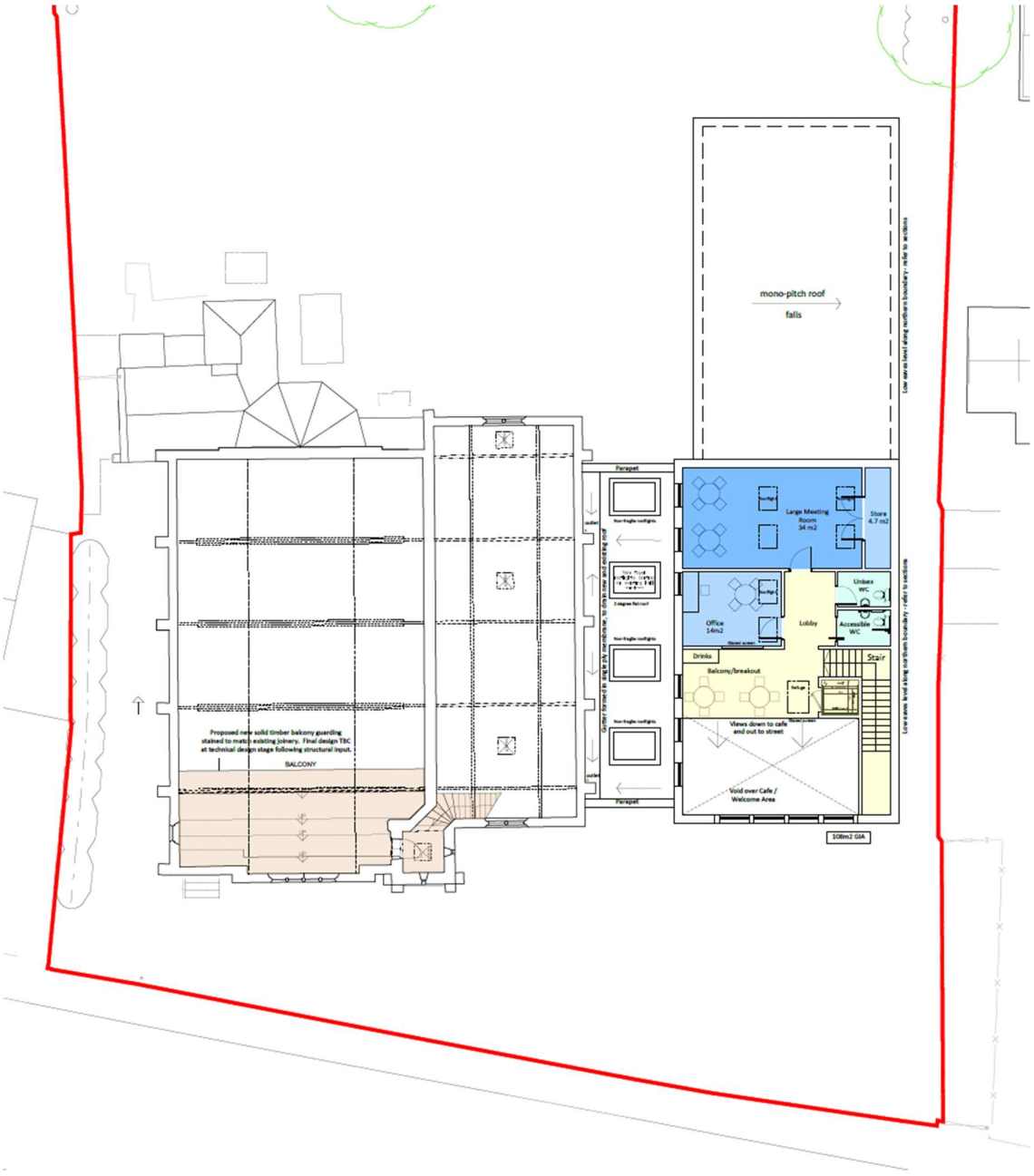


Figure 6 Proposed first floor floor plan of SEC Church with new annex.

It is proposed that the area for the new annex is lowered by approximately 1.2 m so that the new annex floor level is aligned with the existing church floor level. This is to provide better accessibility and better-quality facilities to support the community. This can be seen by the provision of lifts, improved disabled toilets facilities and level access for improved accessibility, more storage to improve the safety and security of people on site and a slightly larger kitchen to enable safer preparation of food for events like Make Lunch (which happens during school holidays) and other occasional church events. Space is also dedicated to enable better circulation areas. Whilst we are aiming to encourage and increase the participation of the local community in the activities offered by the church, the range of activities will broadly remain the same for the foreseeable future.

Appendix E indicates that there is a >25% and <50% possibility of ground water flooding. A search has carried out for underground water courses in the proposed area to be excavated. No underground streams were identified. Also, there have been no incidences of groundwater flooding on the site within living memory.

Appendix D indicates that there is a 1 in 1000 year possibility of surface water flooding at the rear of the church site, attention will be paid to managing surface water from the areas north of the SEC Church site to prevent surface water flooding on site. This is covered in the Sustainable Drainage Report.

4.2 Car Parking Area

The area of the site devoted to car parking is not being changed significantly. With properly marked out parking bays, we expect this to result in approximately 3 to 4 car parking spaces. The area at the north end of the car park will be excavated and the area paved. The existing area will also be resurfaced as the existing tarmac has cracks and needs constant repair. As part of this improvement of the parking area, surface water management will be improved over the current situation. This will be covered in a separate report on sustainable drainage. The church building has shown visible signs of movement in the past. Being a Grade II listed building that was built in 1862 with shallow foundations, care needs to be taken not to allow surface water to ingress around the foundations and thereby cause further movement. This may limit the options available to us and may require an impervious surface close to the church buildings and then collect the surface water and drain it to an appropriate place.

5 Conclusion

This Flood Risk Note has shown that the SEC Church site is in Flood Zone 1, has no known history of flooding and is approximately 9 m above the nearest watercourse. As the site is in Flood Zone 1 and the development is considerably smaller than 1 ha. then no site-specific flood risk assessment is required.

The back of the site is on the edge of a 1000-year event possibility of surface flooding. No known flooding events have occurred in living memory.

The proposed development is an annex to the existing building and is constrained by the need to tie the new annex floor levels into the existing historic church floor levels for accessibility.

This development does not include any change of use or intensification of the site so it will not increase the vulnerability of the site but is rather a replacement building for the same use.

As part of the development, the surface water management of the car park area will be improved within the constraints of having to protect the shallow foundations of the existing Grade II listed church building.

6 Appendix A – Extract of Clause 165 to 175 from National Planning Policy Framework (December 2023)

165. Inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (whether existing or future). Where development is necessary in such areas, the development should be made safe for its lifetime without increasing flood risk elsewhere.

166. Strategic policies should be informed by a strategic flood risk assessment, and should manage flood risk from all sources. They should consider cumulative impacts in, or affecting, local areas susceptible to flooding, and take account of advice from the Environment Agency and other relevant flood risk management authorities, such as lead local flood authorities and internal drainage boards.

167. All plans should apply a sequential, risk-based approach to the location of development – taking into account all sources of flood risk and the current and future impacts of climate change – so as to avoid, where possible, flood risk to people and property. They should do this, and manage any residual risk, by:

a) applying the sequential test and then, if necessary, the exception test as set out below;

b) safeguarding land from development that is required, or likely to be required, for current or future flood management;

c) using opportunities provided by new development and improvements in green and other infrastructure to reduce the causes and impacts of flooding, (making as much use as possible of natural flood management techniques as part of an integrated approach to flood risk management); and

d) where climate change is expected to increase flood risk so that some existing development may not be sustainable in the long-term, seeking opportunities to relocate development, including housing, to more sustainable locations.

168. The aim of the sequential test is to steer new development to areas with the lowest risk of flooding from any source. Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding. The strategic flood risk assessment will provide the basis for applying this test. The sequential approach should be used in areas known to be at risk now or in the future from any form of flooding.

169. If it is not possible for development to be located in areas with a lower risk of flooding (taking into account wider sustainable development objectives), the exception test may have to be applied. The need for the exception test will depend on the potential

vulnerability of the site and of the development proposed, in line with the Flood Risk Vulnerability classification set out in Annex 3.

170. The application of the exception test should be informed by a strategic or site-specific flood risk assessment, depending on whether it is being applied during plan production or at the application stage. To pass the exception test it should be demonstrated that:

a) the development would provide wider sustainability benefits to the community that outweigh the flood risk; and

b) the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

171. Both elements of the exception test should be satisfied for development to be allocated or permitted.

172. Where planning applications come forward on sites allocated in the development plan through the sequential test, applicants need not apply the sequential test again. However, the exception test may need to be reapplied if relevant aspects of the proposal had not been considered when the test was applied at the plan-making stage, or if more recent information about existing or potential flood risk should be taken into account.

173. When determining any planning applications, local planning authorities should ensure that flood risk is not increased elsewhere. Where appropriate, applications should be supported by a site-specific flood-risk assessment[59]. Development should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:

a) within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;

b) the development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment;

c) it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;

d) any residual risk can be safely managed; and

e) safe access and escape routes are included where appropriate, as part of an agreed emergency plan.

174. Applications for some minor development and changes of use[60] should not be subject to the sequential or exception tests but should still meet the requirements for site-specific flood risk assessments set out in footnote 59.

175. Major developments should incorporate sustainable drainage systems unless there is clear evidence that this would be inappropriate. The systems used should:

a) take account of advice from the lead local flood authority;

b) have appropriate proposed minimum operational standards;

c) have maintenance arrangements in place to ensure an acceptable standard of operation for the lifetime of the development; and

d) where possible, provide multifunctional benefits

Footnotes

[59] A site-specific flood risk assessment should be provided for all development in Flood Zones 2 and 3. In Flood Zone 1, an assessment should accompany all proposals involving: sites of 1 hectare or more; land which has been identified by the Environment Agency as having critical drainage problems; land identified in a strategic flood risk assessment as being at increased flood risk in future; or land that may be subject to other sources of flooding, where its development would introduce a more vulnerable use.

[60] This includes householder development, small non-residential extensions (with a footprint of less than 250m2) and changes of use; except for changes of use to a caravan, camping or chalet site, or to a mobile home or park home site, where the sequential and exception tests should be applied as appropriate.

7 Appendix B – East Hertfordshire District Plan Flood Risk Policy

23.2 Flood Risk

23.2.1 Water is an essential resource, but it can also be a hazard. The susceptibility of land to flooding is a material planning consideration. The Council will resist any development which has the potential to contribute to any form of flooding, including sewer flooding, and has adverse impacts on river channel stability or damage to wildlife habitats. The following policies encourage an integrated water management approach to new development.

23.2.2 East Herts Council's Strategic Flood Risk Assessment (SFRA) contains maps showing flood risks from various sources, including river and surface water flood risk areas, and these represent a snapshot of flood risk at a given moment. The Environment Agency publishes regular mapping updates, and the latest evidence should be a material consideration in determination of planning applications. The East Herts Strategic Flood Risk Assessment can be viewed on the Council's website at: www.eastherts.gov.uk/evidencebase

23.2.3 In order to steer new development to areas with the lowest probability of flooding, the Sequential Test, and where necessary the Exception Test will be used. For development proposals of 1 hectare or greater, or on any site within Flood Zones 2, 3a or 3b, a Flood Risk Assessment (FRA) should be submitted with the planning application. The Environment Agency's Standing Advice for applicants and their agents provides further explanation.

7.1 Policy WAT1 Flood Risk Management

I. The functional floodplain will be protected from inappropriate development and where possible developed flood plain should be returned to Greenfield status with an enhanced level of biodiversity.

II. Development proposals should neither increase the likelihood or intensity of any form of flooding, nor increase the risk to people, property, crops or livestock from such events, both on site and to neighbouring land or further downstream.

III. Development should take into account the impacts of climate change and should build in long term resilience against increased water levels. Therefore, appropriate distances and buffers between water courses and built development should be maintained in accordance with Environment Agency guidelines.

IV. In order to steer new development to areas with the lowest probability of flooding, the Sequential Test will be used. In exceptional circumstances, if developments are proposed which are required to pass the NPPF Exceptions Test, they will need to address flood resilient design and emergency planning by demonstrating that:

(a) The development will remain safe and operational under flood conditions;

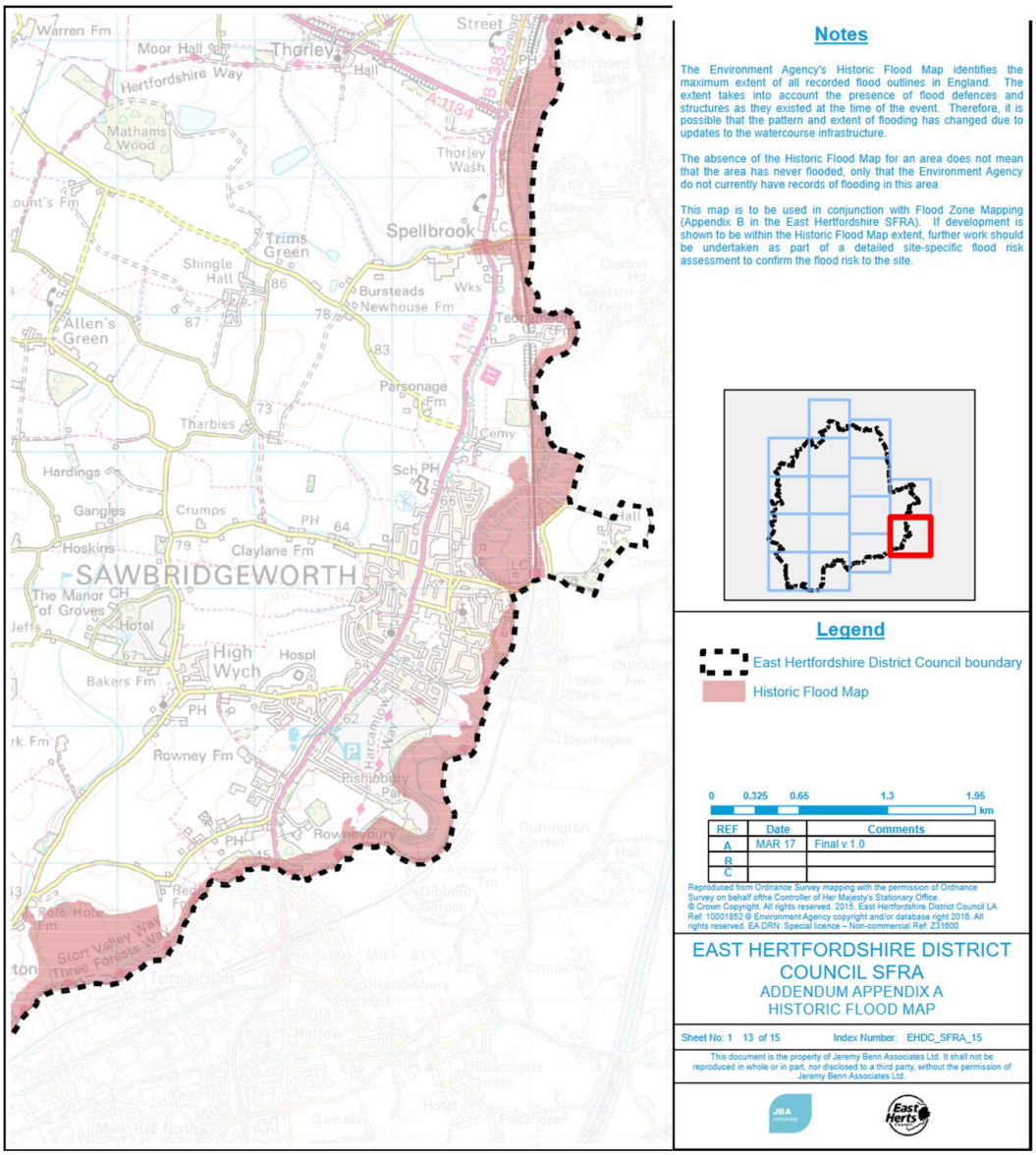
(b) A strategy of either safe evacuation and/or safely remaining in the building is followed under flood conditions;

(c) Key services will continue to be provided under flood conditions; and

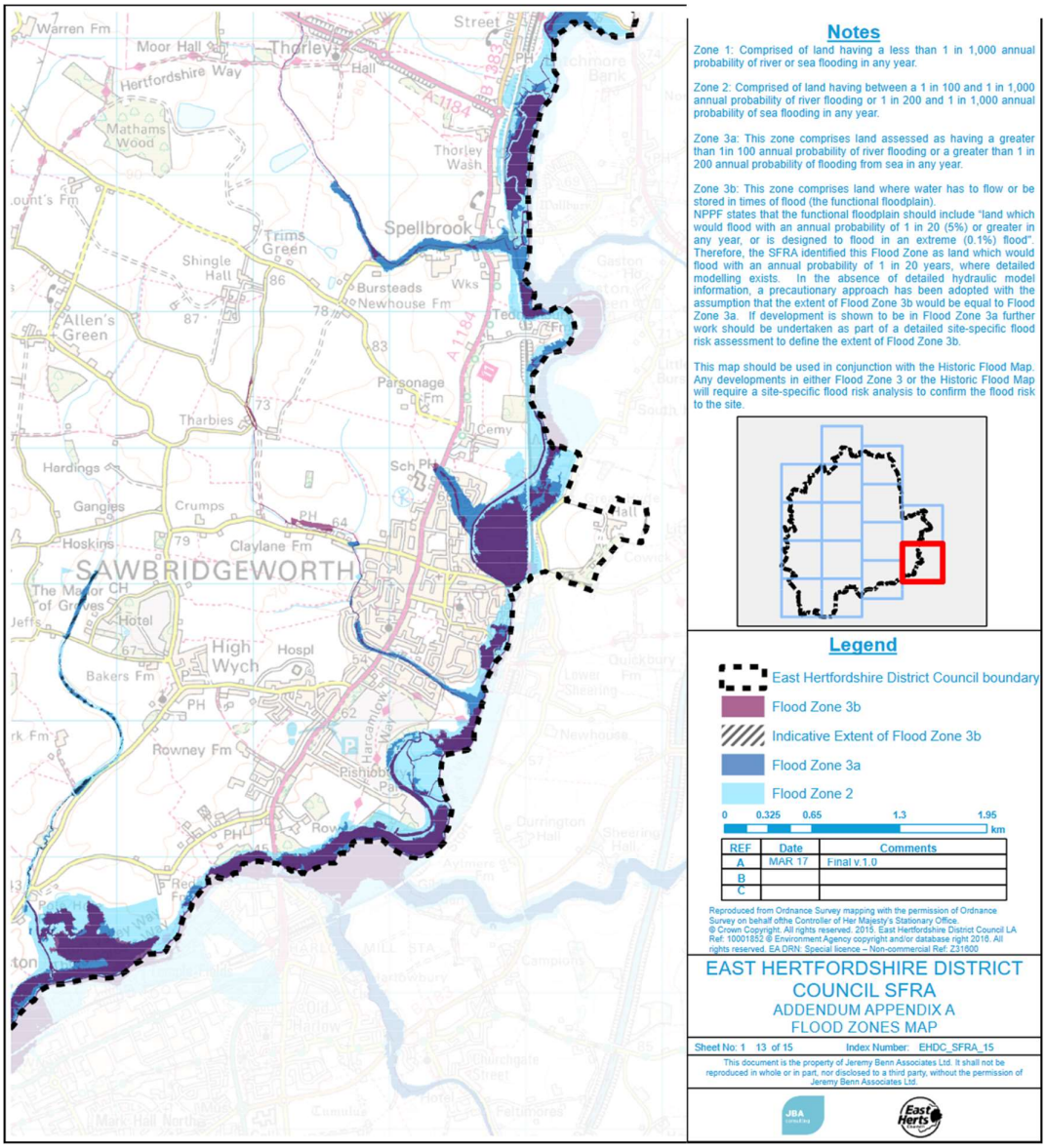
(d) Buildings are designed for quick recovery following a flood.

8 Appendix C – Evidence Base Information taken from East Hertfordshire Website

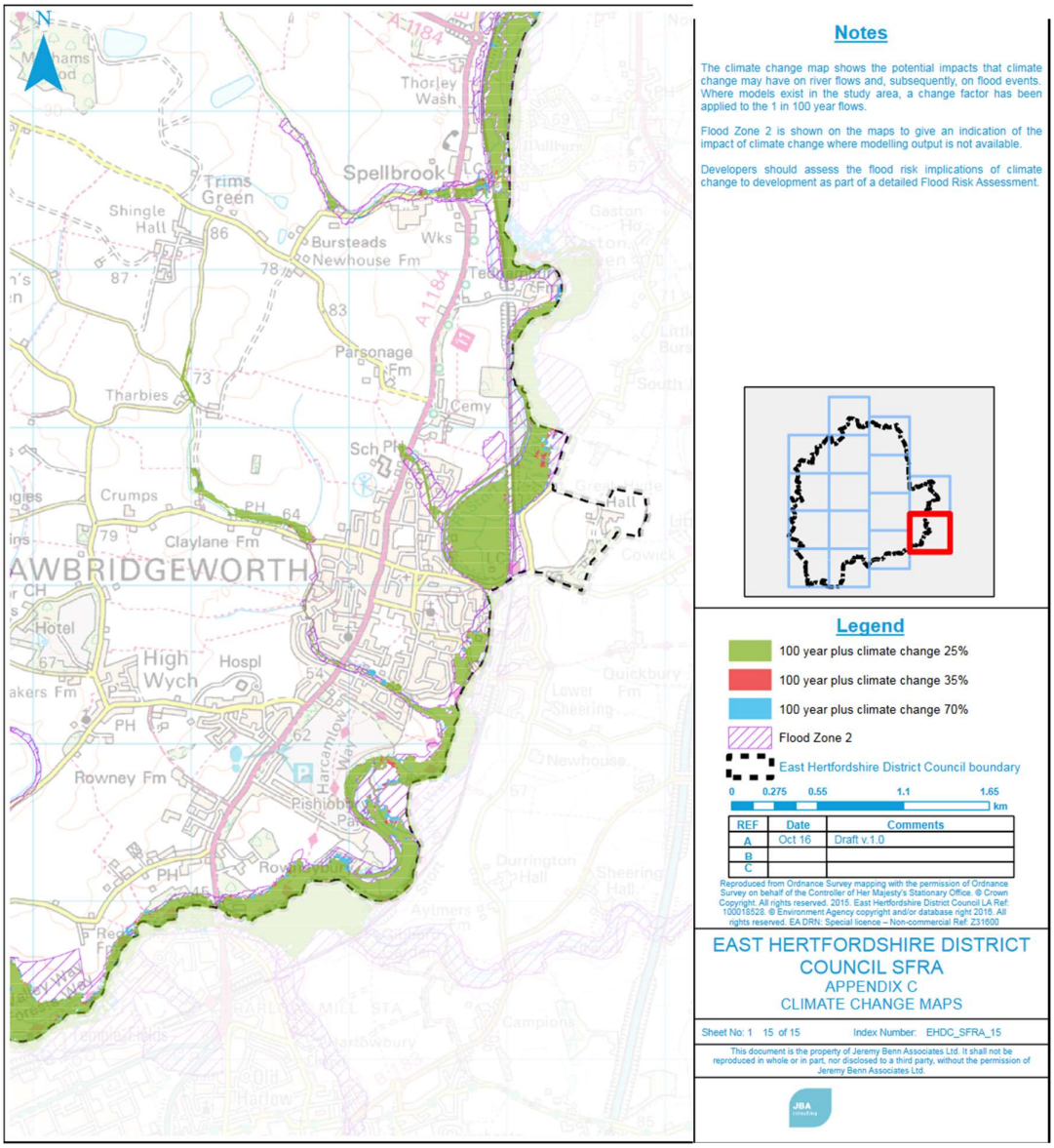
8.1 SFRA Appendix A- Historical Flood Map



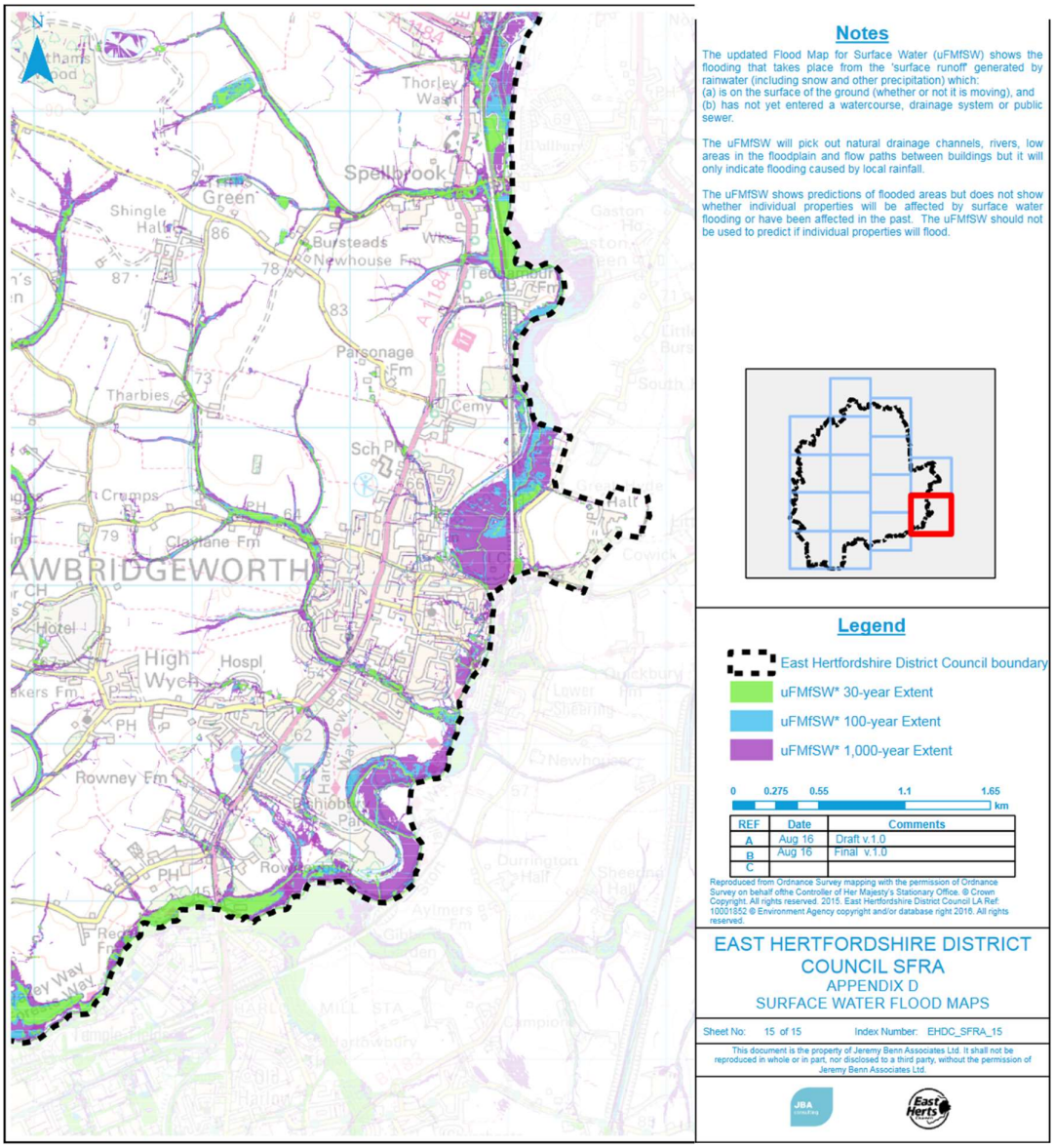
8.2 SFRA Appendix B – Flood Zones



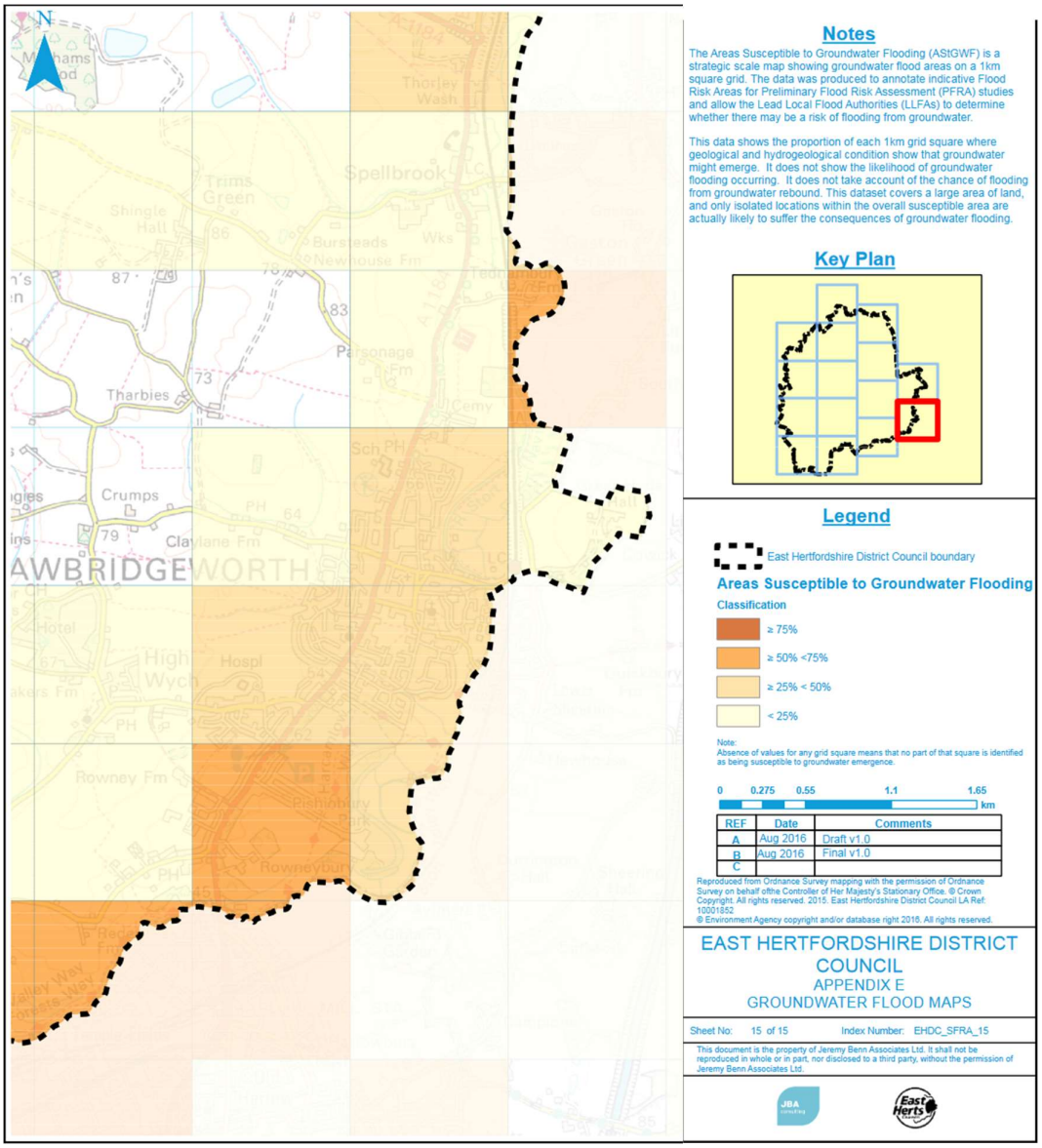
8.3 SFRA Appendix C – Climate Change Impact Map



8.4 SFRA Appendix D – Surface Water Flooding Extent Map



8.5 SFRA Appendix E – Ground Water Flooding Map



9 Appendix D - Environment Agency Flood Map for SEC Church

Environment Agency

Flood map for planning

Your reference	Location (easting/northing)	Created
<Unspecified>	**547994/214654**	**29 Dec 2023 19:31**

Your selected location is in flood zone 1, an area with a low probability of flooding.

You will need to do a flood risk assessment if your site is **any of the following:**

- bigger that 1 hectare (ha)
- in an area with critical drainage problems as notified by the Environment Agency
- identified as being at increased flood risk in future by the local authority's strategic flood risk assessment
- at risk from other sources of flooding (such as surface water or reservoirs) and its development would increase the vulnerability of its use (such as constructing an office on an undeveloped site or converting a shop to a dwelling)

Notes

The flood map for planning shows river and sea flooding data only. It doesn't include other sources of flooding. It is for use in development planning and flood risk assessments.

This information relates to the selected location and is not specific to any property within it. The map is updated regularly and is correct at the time of printing.

Flood risk data is covered by the Open Government Licence **which** sets out the terms and conditions for using government data. https://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/

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