40 – 42 South Street
Worthing

Flood Risk Assessment

For

Geneva Investment Group Ltd

motion

Document Control Sheet

40 – 42 South Street

Worthing

Geneva Investment Group Ltd

This document has been issued and amended as follows:

Date	Issue	Prepared by	Approved by
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1.0 Introduction

1.1 This Flood Risk Assessment (FRA) has been produced by motion on behalf of their client Geneva Investment Group Ltd. It supports the application for the conversion, alteration, extension and demolition of the existing building to extend the ground floor commercial floorspace as well as include 9no. residential flats across the ground, first, second and third floors at 40 – 42 South Street, Worthing.

1.2 This follows a previously consented application under reference AWDM/0297/20 for a very similar development, permission for which has since lapsed. The proposed application will seek to re-establish planning permission for the original scheme with the addition of some minor design changes. It should be noted that since the original application the rear storage building has since been demolished.

1.3 The Environment Agency's (EA's) Flood Map for Planning shows that most of the site is within Flood Zone 3. The Risk of Flooding from Surface Water (RoFSW) mapping shows that the site is at very low surface water flood risk. An FRA is needed to review flood risks to the development and whether it is appropriate in this location, taking into account the building's use and vulnerability classification. A Flood Warning and Evacuation Plan (FWEP) has also been carried out to specifically discuss how residents at 40 – 42 South Street should prepare for, manage during, and recover from a flood event and this is available in a separate document.

1.4 The aim of this FRA document is to satisfy the requirements of the LPA, the Lead Local Flood Authority (LLFA) and the EA in relation to the development and flood risk. Specific objectives of this FRA are to:

- Assess the proposed development against the requirements of the National Planning Policy Framework (NPPF).
- Access whether the proposed development has taken appropriate consideration of the risk of flooding from all potential flood sources.
- Detail how the proposed development will be safe with respect to flooding during its lifetime and suggest flood mitigation measures where these are required and appropriate.

2.0 Site Description

Table 2.1 – Site Summary

Site Name	40 – 42 South Street
Location	Worthing, BN11 3AA
Grid Reference	TQ 14963 02536
Site Area	The red line boundary area of the development is 0.035 ha
Development Type	Conversion, alteration, extension and demolition of the existing building to extend the ground floor commercial floorspace as well as include 9no. residential flats across the ground, first, second and third floors
Flood Zone	Flood Zone 3
Flood Risk Vulnerability Classification	Less Vulnerable/More Vulnerable
Surface Water Flood Risk	Very Low
Local Water Authority	Southern Water
Local Planning Authority	Adur & Worthing Councils
Lead Local Flood Authority	Adur & Worthing Councils

Site Location and Description

2.1 The site is located on the west side of South Street in the centre of Worthing. A site location and block plan can be found in **Appendix A**.

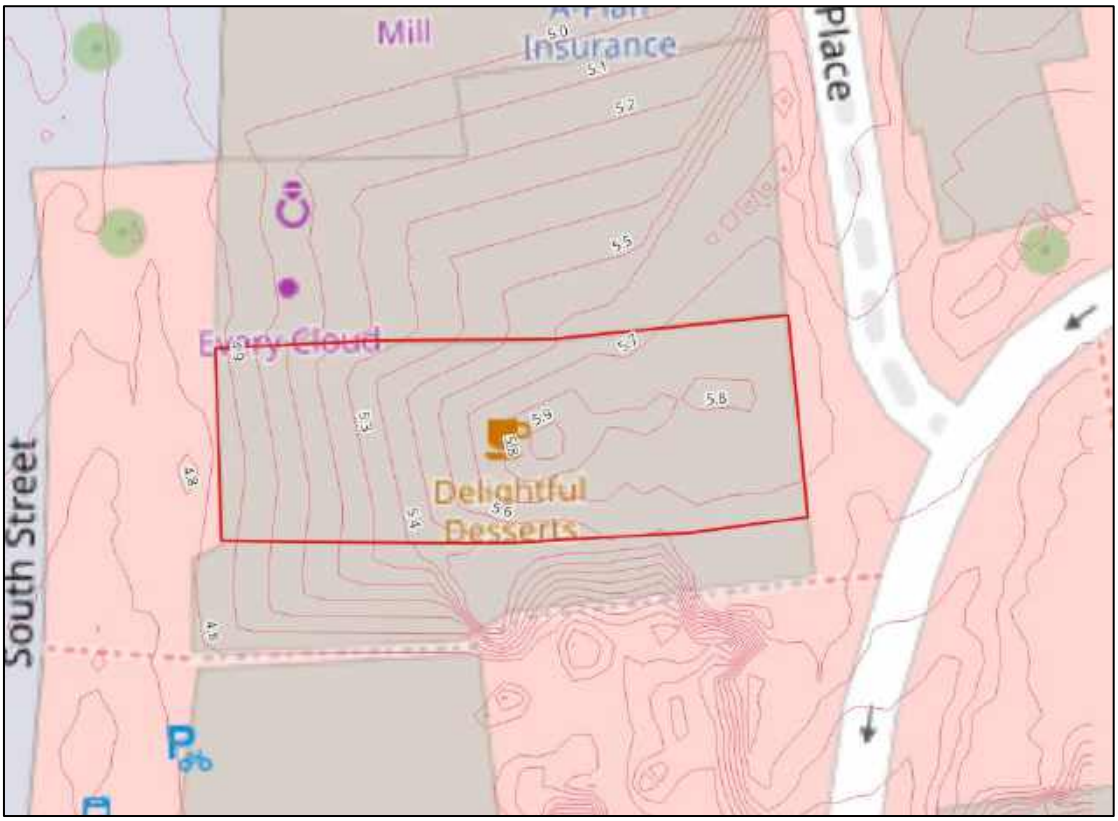
2.2 The existing site consists of a dessert shop on part of the ground floor with the rear area being unused. The upper floors are currently empty/unused but were previously used as storerooms for the retail unit. A copy of the existing elevations can be found in **Appendix B**.

2.3 The proposal is for the conversion, alteration, extension and demolition of the existing building to extend the ground floor commercial floorspace as well as include 9no. residential flats across the ground, first, second and third floors. A copy of the proposed site plans can be found in **Appendix C**.

Topography

2.4 No topographic survey of the site has been carried out to date. However, to understand the topographic levels on site, LiDAR (Light Detection and Ranging) data has been obtained, and this provides an understanding of the site's topography. The LiDAR topography surrounding the site can be seen in Figure 2.1, on the next page.

Figure 2.1 - LiDAR topography



2.5 The ground levels in front of the retail unit, on South Street along the western edge of the site, is shown to be approximately 4.8 metres Above Ordnance Datum (mAOD). The rear of the site, which fronts onto Marine Place, is shown to be higher at 5.8 mAOD. This shows around a 0.9m (900mm) to 1.0m level difference between the front and rear of the site.

2.6 This is confirmed by the existing elevations drawing in **Appendix B**, of which an excerpt is shown below. Figure 2.2, when scaled, shows that there is a c. 950mm difference in the ground levels from the front of the building (West Elevation) to the rear of the building (East Elevation).

2.7 Furthermore, the proposed Ground Floor Plan in **Appendix C** (drawing no. 3927-R-102k) shows that the ground levels to the front (west) of the building are 12.51 metres Above Local Datum (mALD), which rises to 12.93 mALD in the centre of the building. There are no further levels to the rear of the building, but it can be seen that there are four steps up from the floor level of 12.93 mALD and, if these steps have a minimum rising of 150mm (as per the requirements of UK Building Regulations Part K), this means that the rear of the building has a floor level that is at least 600mm higher than the middle of the building and 1.02m higher than the front of the building.

2.8 In summary, there is good evidence that the rear of the building and its access to Marine Place is approximately one metre higher than the entrance to the building from South Street.

Figure 2.2 – Existing building elevations

Precedent for Planning Approval

2.9 The proposed development at 40 – 42 South Street follows several recent and very similar applications in the neighbouring properties, all of which have been approved. To show that there is a precedent for planning approval of commercial and residential development in this part of South Street, this section of the FRA will summarise the previous applications that have taken place, highlighting the reasons for approval.

AWDM/0297/20 - 40 to 42 South Street

2.10 This planning application was very similar application to the current proposals (it was for the conversion, alterations, extensions and demolition of part of the existing building and existing rear storage building to accommodate 209m^2 of existing retail space (A1 Use Class) at ground floor and nine residential flats across ground, first, second and third floors.)

2.11 This application was permitted on 21st July 2020 and was considered to contribute to the supply of housing in a sustainable location, whilst retaining a viable retail use at ground floor level. However, the planning consent was not enacted and has subsequently lapsed, hence the current application.

AWDM/0557/22 - 38 South Street

2.12 This application was for a Non-Material Amendment (NMA) to the consented application AWDM/1375/19, which was for the conversion, alterations, extensions and demolition of part of ground floor of the existing building to accommodate 106 m^2 of existing commercial space (A3 Use Class) at basement level and ground floor, conversion of the existing building fronting South Street to one one-bedroom flat at first floor and one two-bedroom maisonette at second and third floors, with a new dormer on the east elevation. This includes the demolition and erection of the rear building fronting Marine Place to accommodate one three-bedroom dwelling.

2.13 This application was permitted on 13th May 2022. It was considered that the proposal would replace a poor-quality development at Marine Place with a more considered and purposeful building and would enhance the conservation area and setting of listed buildings. It would also add to town centre living by the provision of three new dwellings. The site was considered to be in a sustainable location with access to town centre facilities and services.

AWDM/0995/24 – 48 South Street

2.14 This application was for the redevelopment (including conversion and alterations, extensions at second floor and partial demolition at third floor) of the existing building to retain commercial (Use Class E) at ground floor and accommodate seven residential flats across the first and second floors.

2.15 Planning consent was granted on 14th July 2025. The planning officer found, on balance, that in this town centre location the general principle of residential conversion is supportable as the proposal involves intensification of a brownfield site in a very sustainable town centre location. It was also established that safe access and egress could be demonstrated in this area of flood risk without intervention and, as such, the proposal was in accordance with the NPPF.

AWDM/1707/22 – 34 – 36 South Street

2.16 The proposed development at 34 – 36 South Street sought the conversion of existing internal parking area at ground floor level and associated external alterations to create one two-bedroom flat fronting Marine Place.

2.17 It was permitted on 25th October 2023. Crucially, the EA had no objection to the proposed development in this flood risk area on the basis that finished floor levels (FFL's) should be set no lower than 5.7 mAOD.

3.0 Legislative and Policy Framework

3.1 LLFA's have a responsibility under the FWMA to develop, maintain, apply and monitor the application of a strategy for local flood risk in their area. Local flood risk is defined as flood risk arising from local sources, such as surface water run-off, groundwater and ordinary watercourses (i.e. non-main rivers). The EA plays a role in managing, maintaining and regulating activity around the watercourses designated as Main Rivers.

The National Planning Policy Framework

3.2 The NPPF sets out the Government's national policies on different aspects of land use planning in England in relation to flood risk. The Planning Practice Guidance (PPG) to the NPPF provides further information on the policies set out in the NPPF. It encourages development to take place in areas of lower flood risk wherever possible and stresses the importance of preventing increases in flood risk off-site to the wider catchment area. This includes ensuring that flood risk is considered at all stages of the planning process, avoiding inappropriate development in areas at risk of flooding and directing development away from those areas where risks are highest.

3.3 The process of directing development away from those areas where risks are highest is the Sequential Test. It covers all forms of flooding, and this is covered in Paragraphs 23 and 24 of the NPPF. Following the December 2024 update to the NPPF, Paragraph 175 was added that states that development can be appropriate on sites with flood risk *"in situations where a site-specific flood risk assessment demonstrates that no built development within the site boundary, including access or escape routes, land raising or other potentially vulnerable elements, would be located on an area that would not be at risk of flooding from any source, now and in the future".* This essentially means that if a sequential approach is applied within the site boundary, and areas of flood risk now and in the future are avoided, that flood risk should not prevent the development coming forward and that the Sequential Test is not required.

The Environment Agency Flood Map for Planning

3.4 The updated Environment Agency's Flood Map for Planning was released on 25th March 2025. This updated and new National Flood Risk Assessment (NaFRA) uses both existing detailed local information and improved national data, includes the potential impact of climate change on flood risk, based on UK Climate Projections (UKCP18) and shows potential flood depths. This allows the Flood Map for Planning to provide much higher resolution maps that make it easier to see where there is risk.#

3.5 The New NaFRA Flood Map for Planning remains split into 'Flood Zones', which demarcate the extent of flooding from rivers or the sea for different return periods.

3.6 Table 3.1, on the next page, lists the flood zone categories and explains the flood risk probabilities they represent.

Table 3.1 – Flood Zone Categories

Flood Zone	Definition
Zone 1 Low Probability	Land having a less than 1 in 1,000 annual probability of river or sea flooding (shown as 'clear' on the Flood Map – all land outside Zones 2 and 3)
Zone 2 Medium Probability	Land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability of tidal flooding (land shown in light blue on the Flood Map)
Zone 3a High Probability	Land having a 1 in 100 or greater annual probability of river flooding; or Land having a 1 in 200 or greater annual probability of tidal flooding (land shown in dark blue on the Flood Map)
Zone 3b The Functional Floodplain	This zone comprises land where water must flow or be stored in times of flood, which is typically the 1 in 30-year flood event or greater. Local planning authorities should identify in their SFRAs areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency. (Not separately distinguished from Zone 3a on the Flood Map, but may be distinguished in Product 4 information, for example)

3.7 A site-specific FRA is required for proposals of 1ha or greater in Flood Zone 1, all proposals for development in Flood Zones 2 and 3, or in an area within Flood Zone 1 that has critical drainage problems (as notified to the local planning authority by the EA). There are flood risk in the site and the site is over 1ha in area, thus flood risk from all sources will be reviewed for the completeness of the application.

3.8 An FRA should identify and assess the risks of all forms of flooding and demonstrate how these flood risks will be managed so that a development remains safe throughout its lifetime, taking climate change into account.

3.9 Within each Flood Zone, a key factor in determining planning applications for development is the flood risk vulnerability of a development. Table 2 of the PPG to the NPPF categorises different development types according to their vulnerability to flooding. These categories are:

- Essential infrastructure;
- Highly vulnerable development;
- More vulnerable development;
- Less vulnerable development, and;
- Water-compatible development.

3.10 Within the different Flood Zones each of the above development categories are considered appropriate or not permissible. The Technical Guidance to the NPPF lists these as:

Flood Zone 1:

- All the development categories listed above are appropriate.

Flood Zone 2:

- Water-compatible, less vulnerable development, more vulnerable development and essential infrastructure is appropriate in this zone.

Flood Zone 3a:

- Water-compatible and less vulnerable development is appropriate in this zone. Highly vulnerable development should not be permitted in this zone.

Flood Zone 3b:

- Only water-compatible development and essential infrastructure that must be there should be permitted in this zone.

3.11 The above information sets out the basis by which developments must be assessed in terms of flood risk. Later in this report, the development proposals at 40 – 42 South Street will be reviewed against the Flood Zone in which they are located, and an assessment will be made of the appropriateness of the development, as per the advice within the PPG to the NPPF.

4.0 Current Flood Risk

4.1 Flooding can arise from a variety or combination of sources. These may be natural, or artificial and may be affected by climate change. These are discussed, below, in the following two sections and are summarised in Table 6.1, which is in Chapter 6.

Flooding from Rivers and the Sea

4.2 The development is not at risk of flooding from rivers as there are no watercourses within the local vicinity.

4.3 The Environment Agency's Flood Map for Planning (**Appendix D**) states that the site is located within the high-risk tidal flood zone (Flood Zone 3).

4.4 Prior to the discussion of tidal flood risk, the development, and the residual flood risks, a reference to Table 3 of the PPG to the NPPF shows that retail unit, which is considered to be 'less vulnerable', is considered to be appropriate within Flood Zone 3 without the Sequential Test and Exception Test needing to be completed. However, Table 3 of the PPG to the NPPF states that the residential units would require an Exception Test due to being a 'more vulnerable' development in Flood Zone 3.

Table 3 of the NPPF – Flood Risk Vulnerability and Flood Zone Compatibility

Flood Zones	Flood Risk Vulnerability Classification				
	Essential infrastructure	Highly vulnerable	More vulnerable	Less vulnerable	Water compatible
Zone 1	✓	✓	✓	✓	✓
Zone 2	✓	Exception Test required	✓	✓	✓
Zone 3a †	Exception Test required †	✗	Exception Test required	✓	✓
Zone 3b *	Exception Test required *	✗	✗	✗	✓*

Key:

✓ Development is appropriate

✗ Development should not be permitted.

Flood Defences

4.5 Worthing lies within the Shoreline Management Plan (SMP) Policy Unit 4d-MU8B and Survey Unit 4d-SU16, which is characterised by a shingle beach and a gently sloping sandy lower foreshore. Beach material is retained by wooden groyne structures spaced at 35 - 50m intervals, with rock groynes in the far east of the Policy Unit. The shingle beach represents the tidal defence on the Worthing frontage and the crest level of the shingle beach determines the standard of defence. Details of SMP Policy Unit 4d-MU8B can be found in **Appendix E**.

4.6 As part of the Southeast Regional Coastal Monitoring Programme, a topographic baseline of Worthing's tidal defence level and an interim profile of the beach is taken annually, with post-storm surveys carried out as required. As the information in the details of SMP Policy Unit 4d-MU8B d in **Appendix E** shows,

regular shingle and beach recharge takes place to maintain the defence level. Therefore, the tidal defences are regularly monitored, and any decline in their standard of defence (due to the removal of material through storm/wave action) is managed and beach material is replaced.

4.7 This allows AWC, who are the authority responsible for the maintenance of the tidal defences on Worthing's frontage, to maintain a stated standard of defence of 1 in 200-years. This has been confirmed in writing by one of AWC's coastal engineers and this can be seen in **Appendix F**.

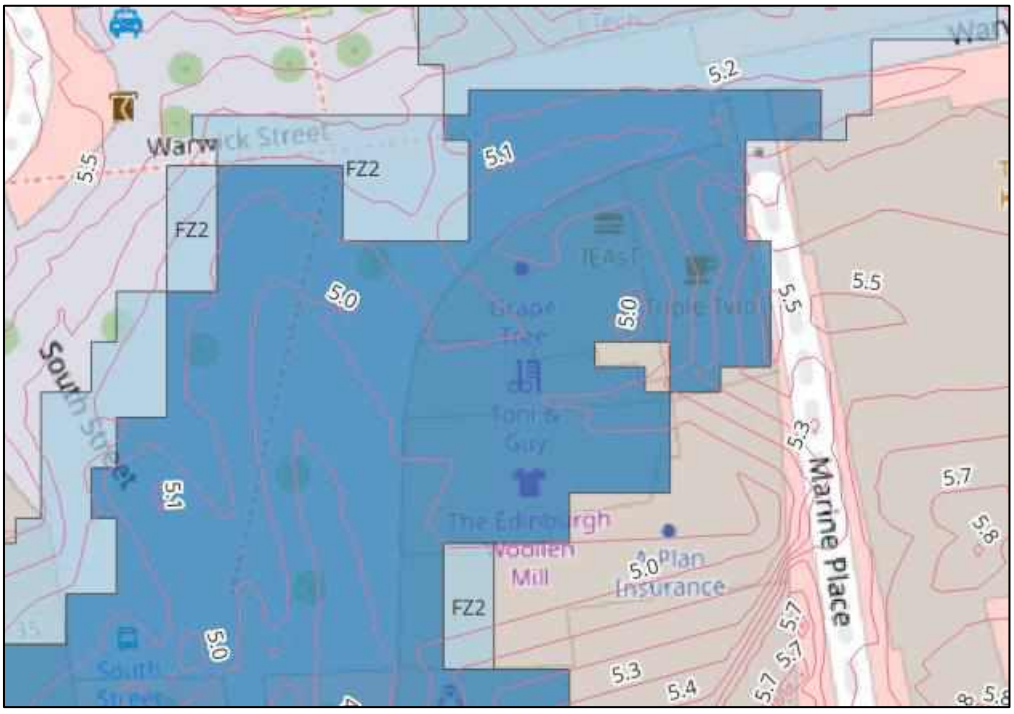
4.8 It is therefore established that Worthing town centre and the development site are in a 'defended' location and the current standard of defence is monitored and maintained to the 'design' 1 in 200-year tidal flood level. The areas shown as Flood Zone 3 on the EA's Flood Map for Planning (**Appendix D**) would only occur in the 'undefended' scenario and, as such, it is confirmed that 40 – 42 South Street is not at risk in the 1 in 200-year 'design' tidal flood event.

Development and Finished Floor Levels

4.9 As discussed in Section 2 of this report, the rear of the building and its access to Marine Place is around one metre higher than the front of the building and the South Street entrance.

4.10 The full extent of Flood Zone 3 in Figure 4.1, below, shows that that the 1 in 100-year flood level is at 5.2 mAOD. As discussed in Section 2 of this report, the front of the building and the existing and proposed retail units are at a floor level of around 4.8 mAOD and, therefore, could experience an estimated flood depth of up to 400mm.

Figure 4.1 – Flood Zone Extents



4.11 Since the rear of the building, where the residential unit is proposed, is approximately one metre higher than the front of the building, at around 5.8 mAOD, this means that it would not experience flooding in the 1 in 100-year tidal flood event. Additionally, there would be approximately 600mm freeboard between the FFL of the proposed residential unit and the predicted 1 in 100-year tidal flood level, which is in accordance with the advice within the NPPF that recommends that floor levels are set at least 600mm above the estimated flood level.

4.12 As stated in Section 2, the planning application at 34 – 36 South Street (planning reference: AWDM/1707/22) was permitted on 25th October 2023. The EA had no objection to the proposed development in this flood risk area on the basis that FFL's should be set no lower than 5.7 mAOD.

4.13 The proposed residential unit to the rear of 40 – 42 South Street is 0.1 mAOD higher than this approved FFL and should also pass the EA's requirements on this matter.

4.14 Furthermore, all residents will have safe, dry access and egress via the rear of the building onto Marine Place. The residential units on the upper floors will be situated well above potential flood levels and will remain dry. As such, no flood mitigation measures are required for these units.

4.15 It is acknowledged that the commercial space within the building will remain at the current level of flood risk, but that the overall level of risk to persons and property is not increasing over the existing situation. However, as a case for betterment, the proposed commercial development will comply with the standing advice within the NPPF and will use flood resilient materials up to at least 600mm above the estimated flood level of 5.2 mAOD.

4.16 In summary of tidal flood risk, the proposed 'less vulnerable' commercial use of the front of the building will remain as existing in terms of use and risk level. However, the proposed residential development to the rear of the building will be well above any tidal flood levels and can also demonstrate at least 600mm of freeboard to finished floor levels, with safe, dry access to Marine Place. As such, there is no reason that flood risk should cause the residential development on the rear of the ground floor to be unacceptable.

4.17 Also, because the residential units on the upper floors are also accessed from the stairway to the rear of the building, they, too, have safe dry access during times of flooding.

4.18 Finally, there is precedent for the acceptance of residential development within the units neighbouring the proposed development site and on South Street. These have been deemed to be development in a sustainable location that would enhance the conservation area and the setting of listed buildings. They have also added to town centre living by the provision of new dwellings. The only flood risk impediments that have been noted in previous applications are the level of FFLs in residential development and safe dry access, and the proposed development at 40 – 42 South Street achieves/exceeds both these requirements.

Surface Water Flooding

4.19 Surface water, or pluvial flooding, results from rainfall-generated overland flow, where rainwater has not yet reached a watercourse or sewer and where the local drainage systems become overwhelmed. Pluvial flooding often occurs during short, very intense storms, but can also occur during longer periods of rainfall when the ground is already saturated, or where land has low permeability due to development.

4.20 In these conditions surface water can build up where the topography allows it to converge or pond. Where it gathers it will travel down prevailing gradients. Pluvial flooding then occurs at locations where significant surface water flow paths converge, at localised low points and/or due to overland obstructions. In urban areas pluvial flooding often occurs where the built environment channels overland flow routes (down roads that are bounded by kerbs, for example) or where there are obstacles to the natural overland flow routes. Boundary walls and buildings are often the main causes and, hence, the likelihood of pluvial flooding to impact property and built-up areas.

4.21 Pluvial flooding is exacerbated in many cases by the mistreatment or failure of the below ground infrastructure (including partial or full blockages of gullies and/or within the combined sewers and the accumulation of fats, oils and greases within the sewer networks).

4.22 The EA's Risk of Flooding from Surface Water (RoFSW) map was updated and refined in January 2025. The map uses improvements in data, technology and modelling and includes information and input from LLFAs, where this is available. This New National Model (NNM) for surface water represents a significant

improvement over previous national-scale models and, generally speaking, has shown a reduction in overall surface water flood risk (when compared with the previous RoFSW mapping) with more targeted risk areas that tie in better with local land features and overall topography.

4.23 The EA's RoFSW maps for the site (**Appendix G**) shows that the site is at very low surface water flood risk (less than the 1 in 1,000-year return period).

4.24 Therefore, it can be seen that the site is not currently at risk of surface water flooding.

Groundwater Flooding

4.25 There are no flood risk maps for groundwater, as stated by the Environment Agency in their 2011 guidance note 'flooding from groundwater'. Mapping products currently available only show areas where the geological and hydrological conditions may combine to cause groundwater flooding, but they should not be considered as groundwater flood risk maps. They only show susceptibility to groundwater flooding.

4.26 There are several mapping products that depict areas that may be susceptible to groundwater flooding, but they are not comparable in detail to the risk maps developed for fluvial, tidal and surface water, such as those used by practitioners and risk management authorities to support planning decisions. The mapping does not show the likelihood of groundwater flooding occurring and can only be considered as a hazard, but not a risk-based dataset.

4.27 As such, the mapping products can be viewed as indicative at best and should only be used as a prompt to review site-based information to determine whether groundwater is a risk factor that should be considered. Indeed, the Environment Agency state that:

"The susceptibility data should not be used on its own to make planning decisions at any scale and, in particular, should not be used to inform planning decisions at the site scale. The susceptibility data cannot be used on its own to indicate risk of groundwater flooding."

4.28 This FRA will review the groundwater flooding susceptibility mapping available, which has been supplied in the Envirocheck Landmark Flood Studies Report (FSR) and can be seen in **Appendix H**.

BGS Geological Indicators of Flooding

4.29 The BGS Geological Indicators of Flooding map shows that the site is not in an area with indicators of groundwater flooding.

BGS Groundwater Flooding Susceptibility

4.30 The BGS Groundwater Flooding Susceptibility map shows that the site is in an area with limited potential for groundwater flooding to occur.

Geosmart Information Groundwater Flood Map

4.31 The Geosmart Information Groundwater Flood Map places the site in an area of 'low' risk.

Groundwater Flood Risk Summary

4.32 40 – 42 South Street is not in an area with inland indicators of groundwater flooding and is in an area with limited potential for groundwater flooding to occur. Due to this and then being in areas of 'low' risk, it can be seen that the development site is at very low to low groundwater flood risk.

Flooding from Infrastructure Failure

4.33 Sewer flooding can occur when the capacity of the infrastructure is exceeded by excessive flows, or because of a reduction in capacity due to collapse, siltation, blockage, or if the downstream system becomes surcharged. This can lead to the sewers flooding onto the surrounding ground via manholes and gullies, which can generate overland flows.

4.34 Typically, sewer systems are constructed to accommodate rainstorms with a 30-year return period or less, depending on their age. Consequently, rainstorm events greater than 1 in 30-years would be expected to result in surcharging of some parts of the sewer system. In fact, due to most gullies being poorly maintained and often partially blocked with silt, leaves and other debris, their capacity is often estimated to be closer to the 1 in 10-year storm.

4.35 The 2024 Strategic Flood Risk Assessment (SFRA) for Adur and Worthing Councils talks about the historical incidents of flooding detailed by Southern Water.

4.36 All Water Companies have a statutory obligation to maintain a register of properties/areas which have reported records of flooding from the public sewerage system, and this is shown on the 'DG5 Flood Register'. This includes records of flooding from foul sewers, combined sewers and surface water sewers that are deemed to be public and maintained by the Water Company.

4.37 The 2024 SFRA states that the 'BN11 3' postcode area had a total of 12 recorded flood incidents.

4.38 12 reported cases of sewer flooding over a whole postcode area shows that there is low risk of sewer flooding locally. Therefore, the development site cannot be considered to be at risk of sewer flooding or flooding from infrastructure failure because the location of the development is not in area where sewer flooding has occurred before.

Flooding from Artificial sources

4.39 The EA provides a map showing the maximum potential flood extent should all reservoirs with a capacity of greater than 25,000 cubic metres fail and release the water they hold.

4.40 The map shows that the site would not experience flooding in this scenario.

4.41 There are no other artificial sources of flooding (such as canals) in the vicinity of the site that could cause flooding.

Historic Flooding

4.42 The Envirocheck Landmark FSR includes a map showing recorded flood outlines, which can be seen in **Appendix I**.

4.43 This map shows that the site has no record of flooding in the past. Thus the Historic Flood Map supports this report's conclusion that the site is at low to medium risk of flooding and that the proposed development is appropriate in this location.

5.0 Future Flood Risk & Climate Change

5.1 The 2024 NPPF and the supporting Technical Guidance document sets out how flood risk should be considered over the lifetime of a development. This requires an increase in flood risk due to climate change to be taken into account. Both peak river flows and rainfall intensity should be assessed.

Peak River Flows

5.2 The EA's NaFRA2 Flood Map for Planning includes an increase for climate change. This is for the 2080's epoch, which covers the period of 2070 to 2125 and the lifespan of a residential development.

5.3 With an inclusion for climate change the proposed development site will be at risk of flooding as is shown in Figure 5.1, below. This is presumably not modelled with an increase in the level of protection that will be provided with the maintenance and upgrading of tidal flood defences over time.

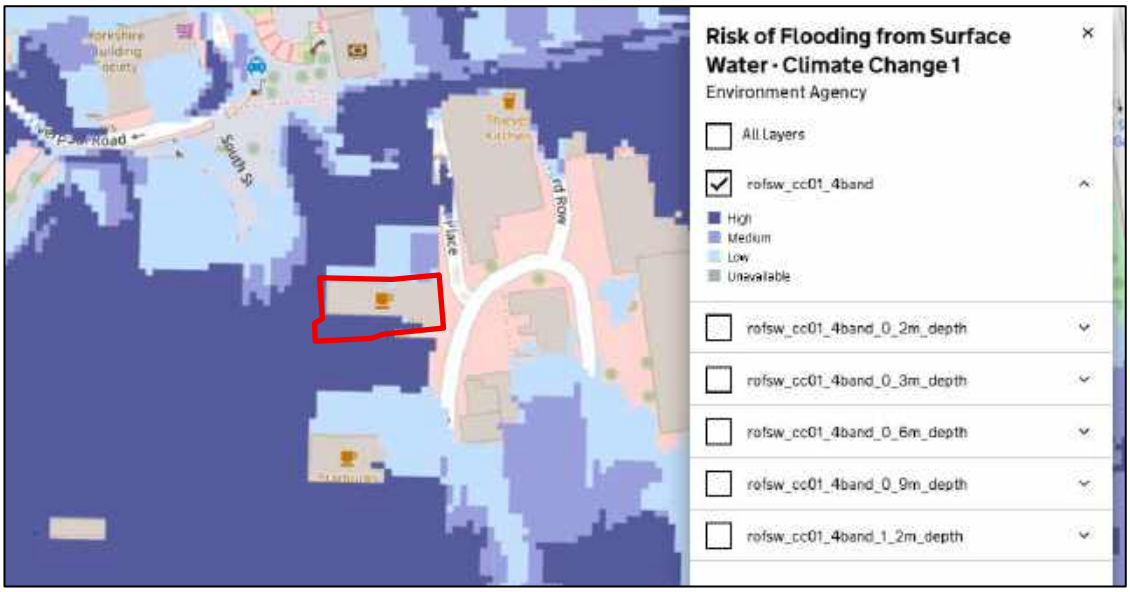
Figure 5.1 – Future fluvial flood risk (2070 to 2115)

Peak Rainfall Intensity

5.4 The proposed development site is within the Adur and Ouse Management Catchment. The peak rainfall climate change increase predicted for this management catchment is 45% for the 2050's and 2070's epochs.

5.5 A climate change peak rainfall intensity increase of this amount will increase surface water flood risk in the future. To investigate the impact of this increase in surface water flood risk, the future RoFSW flood mapping has been reviewed, which includes a climate change increase. An excerpt of this mapping in the location of the proposed development can be seen in Figure 5.2 on the next page.

Figure 5.2 – Future surface water flood risk (2050's epoch)



5.6 The mapping shows that the site could be at high risk of surface water flooding in the southwestern corner of the site.

5.7 Therefore, the front of the proposed development will be at risk of surface water flooding in the future, but there is no evidence to suggest that the rear of the building on Marine Place will be at risk, so the occupants of the residential unit will still be afforded safe access and egress.

6.0 Summary of Flood Risk

6.1 Historic, current and future flood risk, from all sources, has been reviewed in the context of the proposed development at 40 – 42 South Street, Worthing. A summary of these flood risks is summarised in Table 6.1, below. The allocation of overall flood risk shows the residual flood risk once the site-specific conditions have been taken into account.

Table 6.1 - Summary of Residual Flood Risk From All Sources

Flood Source	Risk Level				Comment
	High	Medium	Low	Very Low	
Fluvial		X	X		The site is within Flood Zone 3 on EA Flood Map.
Tidal				X	In Tidal FZ1.
Groundwater			X	X	In an area with limited potential for groundwater flooding to occur, no inland indicators of groundwater and at 'low' risk.
Surface Water				X	Site at very low risk of surface water flooding.
Canals				X	No canals in the local area.
Reservoirs				X	No reservoirs in the local area.
Infrastructure Failure				X	No indication that local drainage infrastructure would cause elevated levels of flood risk.
Increase due to Climate Change		X	X		Increased peak rainfall intensities and river flows are expected to affect the property in the future.

7.0 Mitigation – Flood Avoidance, Resistance and Resilience

7.1 Flood risk can be mitigated through taking measures to avoid, resist and be resilient to flooding, should it be necessary to do so.

Avoidance

7.2 Avoidance is carrying out development in line with the sequential test and relocating development to areas of lower flood risk. In the case of the development at 40 – 42 South Street, this is not applicable because the building is already in its location.

Resistance

7.3 Resistance measures can help to prevent water from entering a property. This is particularly effective for low depth flooding. It is recommended that the development provides the fittings for a flood gate on the ground floor entrances to the building.

7.4 If there are any air bricks, these should also be fitted with protection to stop any ingress of flood water.

7.5 However, the success of the removable structures is dependent on the occupants of the building having been informed of an impending flood and taking timely action. As discussed above, the emplacement of and removable flood barriers should be the responsibility of the flood wardens, who should be trained in how to fit and remove the flood barriers.

7.6 As described above, where possible, the drains should be fitted with non-return valves to reduce the risk of sewage surcharge inside the property during a flood event.

Resilience

7.7 Resilience measures do not stop water from entering a property; they acknowledge that there may be floodwater ingress and aim to minimise the impact in terms of cost and disruption immediately after a flood event. They can be incorporated into the structure of the building or can be included in the finishes, services and insulation on a building's internals.

7.8 Because the residential development will be on raised floor levels (at least 600mm above tidal flood levels) and the upper floors, the majority of soft furnishings and perishable items will be above the tidal flood levels.

7.9 On the ground floor, where possible, services, power outlets, etc. should be placed high to keep them above any possible flood waters. Waterproof plasters and renders should be used to finish the walls within the commercial unit.

Flood Warning and Evacuation Plans

7.10 It is imperative that people do not get 'caught out' by any flooding in the area and become stranded within the building due to flood waters cutting off any safe access and egress.

7.11 In recognition of this, Motion have also developed a Flood Warning and Evacuation Plan (FWEP). This is available in a separate document and can be found in **Appendix J**.

8.0 Summary and Conclusions

8.1 This Flood Risk Assessment (FRA) has been produced by motion on behalf of, Geneva Investment Group Ltd. It supports the application for the conversion, alteration, extension and demolition of the existing building to extend the ground floor commercial floorspace as well as include 9no. residential flats across the ground, first, second and third floors at 40 – 42 South Street, Worthing.

8.2 The EA's Flood Map for Planning states that the site is located within the high-risk tidal flood zone (Flood Zone 3).

8.3 Table 3 of the PPG to the NPPF shows that retail unit, which is considered to be 'less vulnerable', is considered to be appropriate within Flood Zone 3 without the Sequential Test and Exception Test needing to be completed. However, Table 3 of the PPG to the NPPF states that the residential units would require an Exception Test due to being a 'more vulnerable' development in Flood Zone 3.

8.4 Worthing town centre and the development site are in a 'defended' location and the current standard of defence is monitored and maintained to the 'design' 1 in 200-year tidal flood level. The areas shown as Flood Zone 3 on the EA's Flood Map for Planning would only occur in the 'undefended' scenario and, as such, it is confirmed that 40 – 42 South Street is not at risk in the 1 in 200-year 'design' tidal flood event.

8.5 LiDAR data provides an understanding of the site's topography, it demonstrates that the rear of the building is around one metre higher than the front of the building.

8.6 The 1 in 100 year flood level is around 5.2m AOD and the front of the building is around 4.8m AOD, therefore, could experience estimated flood depth of up to 400mm. Since the rear of the building, where the residential unit is proposed, is approximately one metre higher than the front of the building, at around 5.8 mAOD, this means that it would not experience flooding in the 1 in 100-year tidal flood event. Additionally, there would be approximately 600mm freeboard between the FFL of the proposed residential unit and the predicted 1 in 100-year tidal flood level, which is in accordance with the advice within the NPPF that recommends that floor levels are set at least 600mm above the estimated flood level.

8.7 The planning application at 34 – 36 South Street (planning reference: AWDM/1707/22) was permitted on 25th October 2023. The EA had no objection to the proposed development in this flood risk area on the basis that FFL's should be set no lower than 5.7 mAOD. The proposed residential unit to the rear of 40 – 42 South Street is 0.1 mAOD higher than this approved FFL and should also pass the EA's requirements on this matter.

8.8 Furthermore, all residents will have safe, dry access and egress via the rear of the building onto Marine Place. The residential units on the upper floors will be situated well above potential flood levels and will remain dry. As such, no flood mitigation measures are required for these units.

8.9 It is acknowledged that the commercial space within the building will remain at the current level of flood risk, but that the overall level of risk to persons and property is not increasing over the existing situation. However, the proposed commercial development will comply with the standing advice within the NPPF and will use flood resilient materials up to at least 600mm above the estimated flood level of 5.2 mAOD.

8.10 In summary of tidal flood risk, the proposed 'less vulnerable' commercial use of the front of the building will remain as existing in terms of use and risk level. However, the proposed residential development to the rear of the building will be well above any tidal flood levels and can also demonstrate at least 600mm of freeboard to finished floor levels, with safe, dry access to Marine Place. As such, there is no reason that flood risk should cause the residential development on the rear of the ground floor to be unacceptable.

8.11 Finally, there is precedent for the acceptance of residential development within the units neighbouring the proposed development site and on South Street. These have been deemed to be development in a sustainable location that would enhance the conservation area and the setting of listed buildings. They have also added to town centre living by the provision of new dwellings. The only flood risk impediments

that have been noted in previous applications are the level of FFLs in residential development and safe dry access, and the proposed development at 40 – 42 South Street achieves/exceeds both these requirements.

8.12 The EA's RoFSW maps for the site shows that the site is at very low surface water flood risk.

8.13 40 – 42 South Street is not in an area with inland indicators of groundwater flooding and is in an area with limited potential for groundwater flooding to occur. Due to this and then being in areas of 'low' risk, it can be seen that the development site is at very low to low groundwater flood risk.

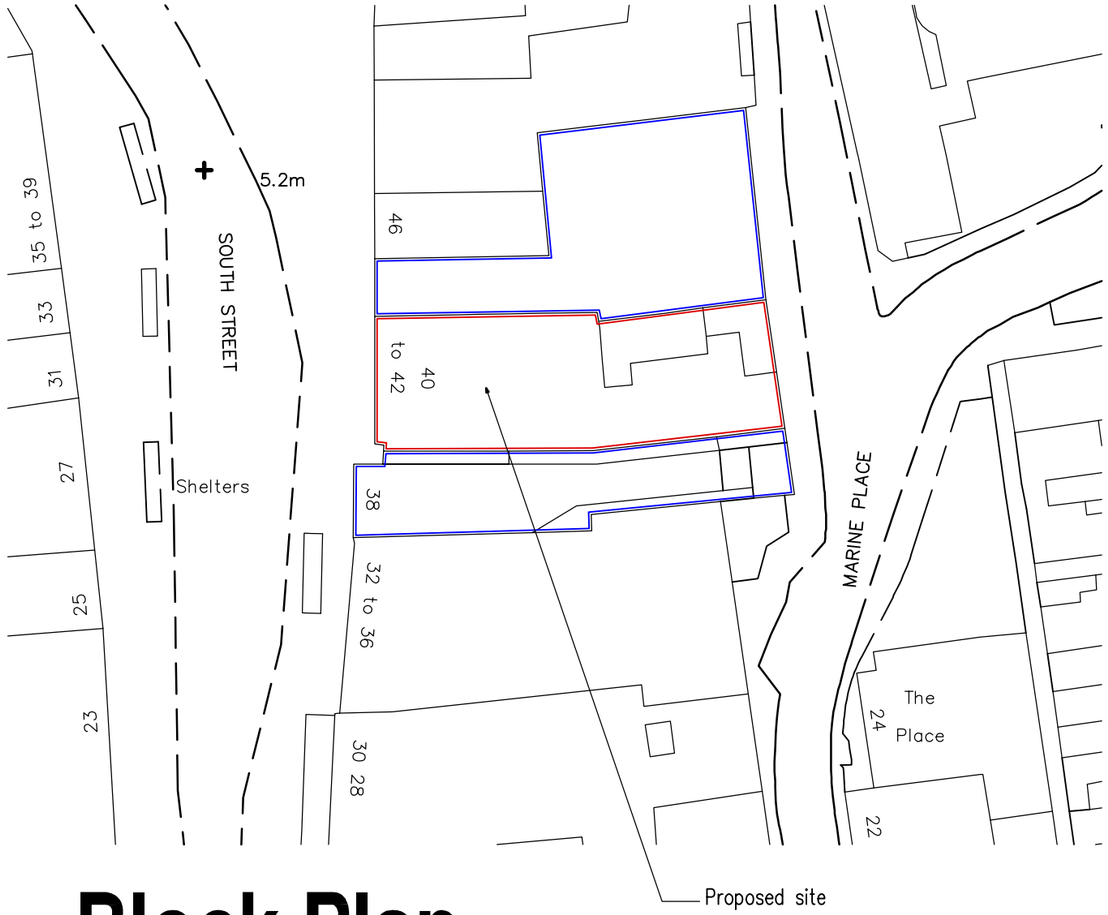
8.14 The 2024 SFRA states that the 'BN11 3' postcode area had a total of 12 recorded flood incidents. 12 reported cases of sewer flooding over a whole postcode area shows that there is low risk of sewer flooding locally. Therefore, the development site cannot be considered to be at risk of sewer flooding or flooding from infrastructure failure.

8.15 The site is not at risk of reservoir flooding and there are no other artificial sources of flooding (such as canals) in the vicinity of the site that could cause flooding.

8.16 In conclusion, the current flood risks to 40 – 42 South Street do not preclude the proposed development, which is appropriate in this location.

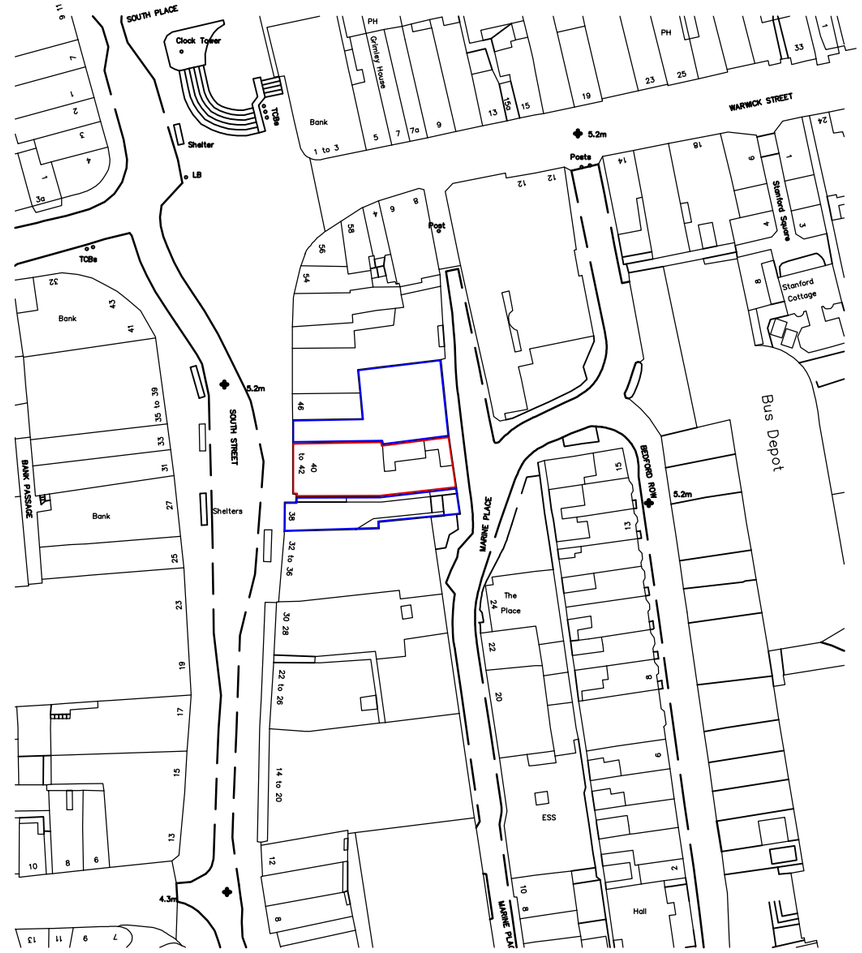
Appendix A

Site Location and Block Plan



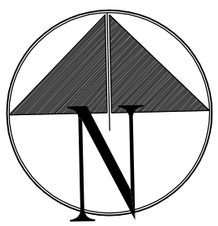
Block Plan

1:500



Location Plan

1:1250



1:500 Scale Bar

1:1250 Scale Bar

Clive Voller Associates
Chartered Building Surveyors
Garden Cottage
Farm Lane
Ditchling
BN6 8UN
Tel: 01444 871010
Fax: 01444 870099
Web: www.clivevoller.com
RICS

Project:
40–42 South Street
Worthing

Title:
Block & Location Plans

Client:
Geneva Investment Group

Scale:
1:500, 1:1250 @ A3

Date:
Jan 2020

Drawn:

Drg. No. 3927—loc

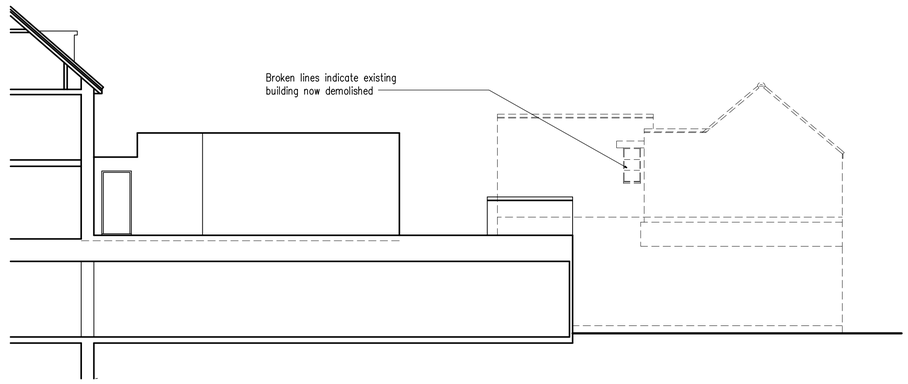
Rev'n —

Appendix B

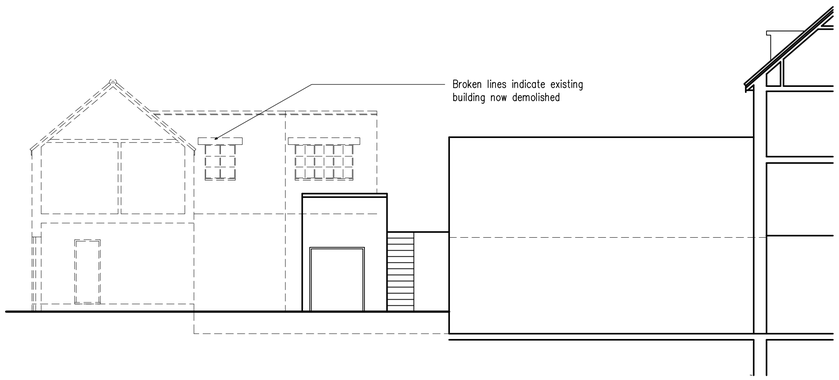
Existing Elevation Plan

West Elevation
From South Street
As Existing
1:100

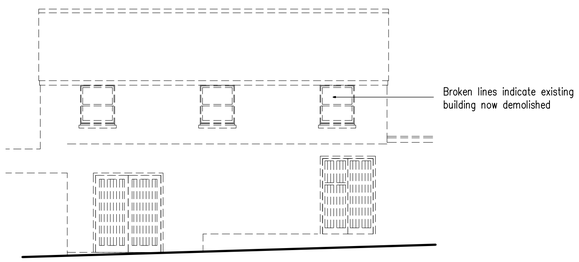
East Elevation
From Courtyard
As Existing
1:100



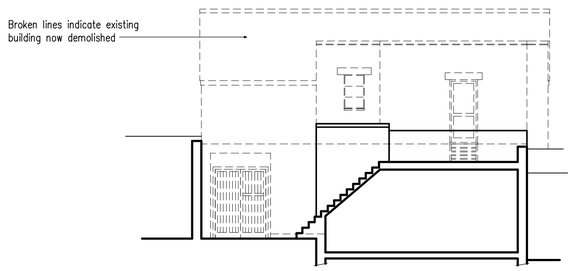
South Elevation
As Existing
1:100



North Elevation
As Existing
1:100



East Elevation
From Marine Place
As Existing
1:100



West Elevation
From Courtyard
As Existing
1:100

1m 2m 3m 4m
1:100 Scale Bar

A | Aug 2025 | Plans updated

Project:
Conversion Of Upper Floors at:
40-42 South Street
Worthing

Drawing title:
Elevations
As Existing

Client:
Geneva Investment Group

Clive Voller Associates
Chartered Building Surveyors
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Web: www.clivevoller.com

Scale:
1:100 @ A1

Date:
Sept 2015

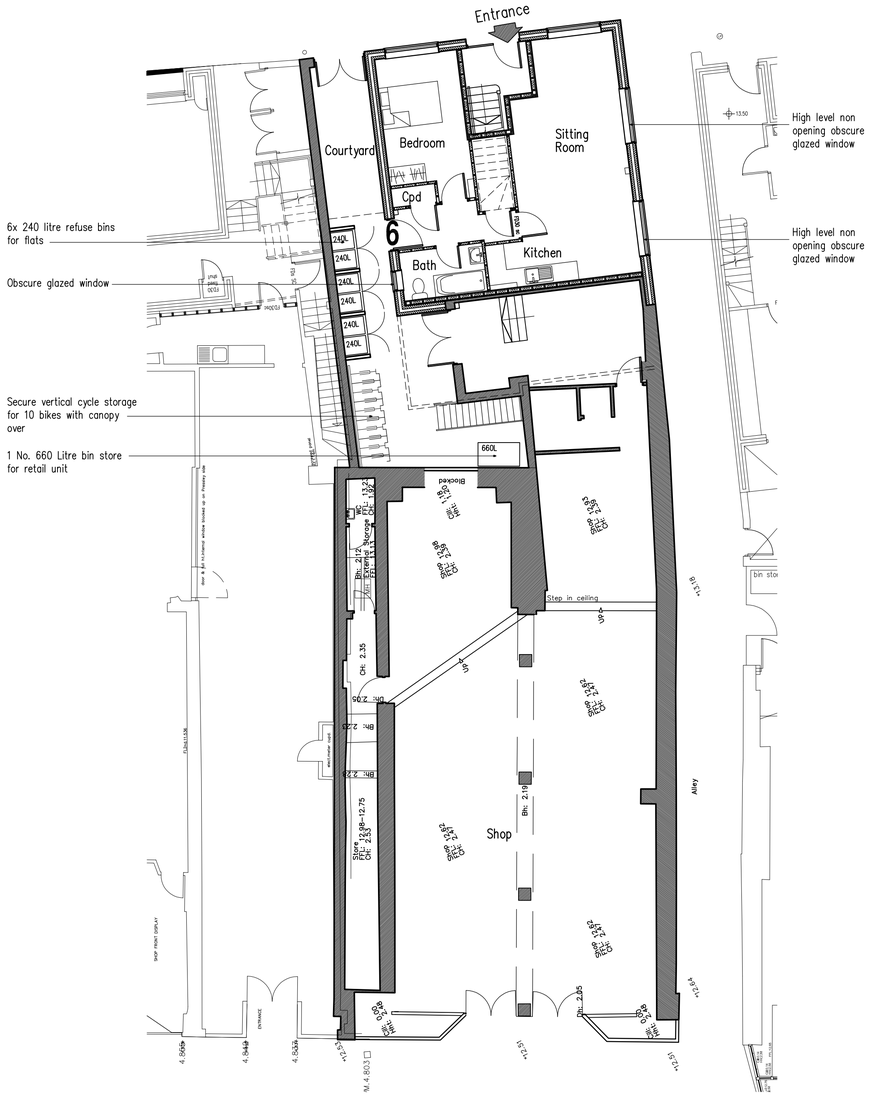
Drawn:

Drg. No.
3927-R-101

Rev'n
A

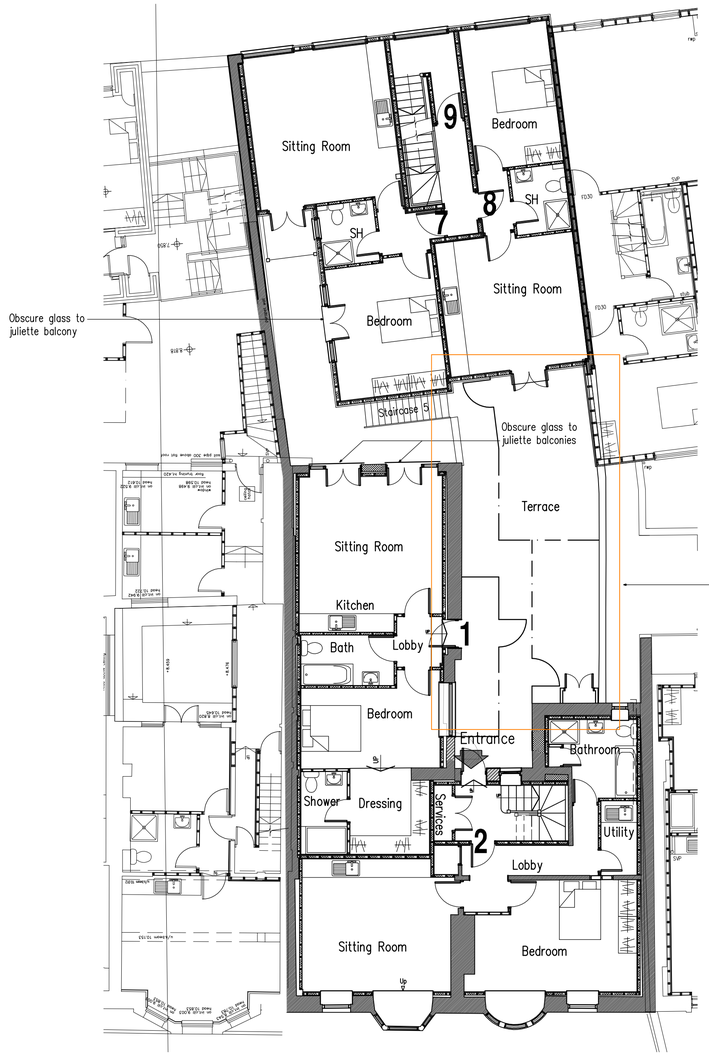
Appendix C

Proposed Site Layout



Ground Floor Plan

As Proposed
1:100
Flat 6 – 55m2



For terrace details refer to Drawing 3927-r-105

First Floor Plan

As Proposed
1:100

Flat 1 – 56m2
Flat 2 – 61m2
Flat 7 – 46m2
Flat 8 – 39m2
Flat 9 – 87m2

1m 2m 3m 4m 5m
1:100 Scale Bar

K	Aug 2025	38–44 plans added
J	Jan 2024	Layout amended
I	Jan 2024	Planning app 2024
H	June 2022	Regs issue
G	March 2022	Doors to Flat 1 amended
F	March 2022	Second/third floors moved to drawing 3927–R–103
E	Feb 2022	Adjacent buildings shown
D	Feb 2022	Terrace reference added
C	Oct 2021	Balconies amended
B	Sept 2021	Balconies added, layout amended
A	Sept 2021	Balconies added, layout amended

Project:
Conversion Of Upper Floors at:
40–42 South Street
Worthing

Drawing title:
Floor Plans
As Proposed

Client:
Geneva Investment Group

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RICS

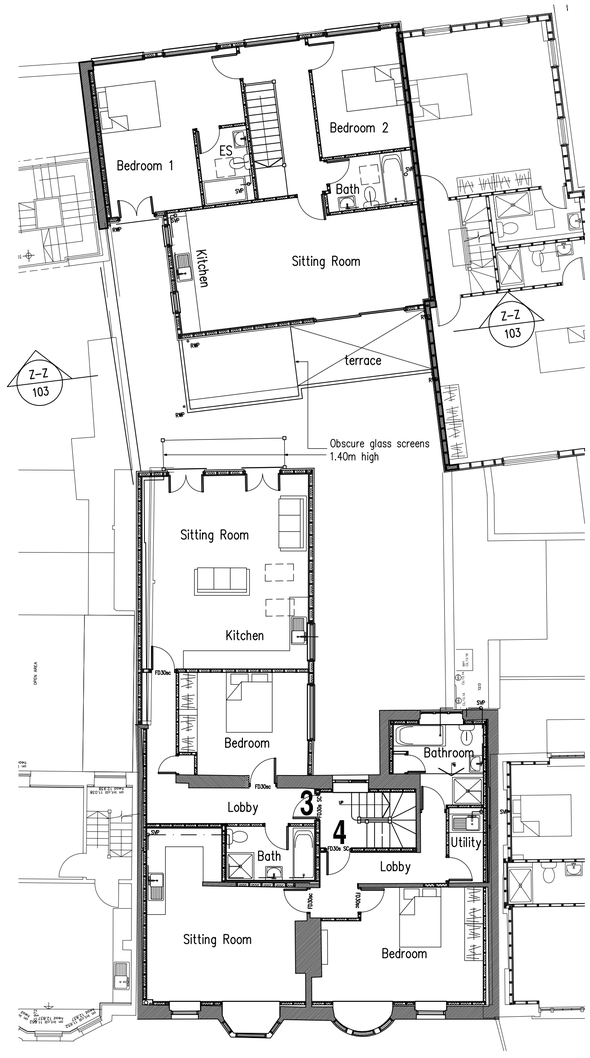
Scale:
1:100 @ A1

Date:
Nov 2019

Drawn:

Drg. No.
3927-R-102

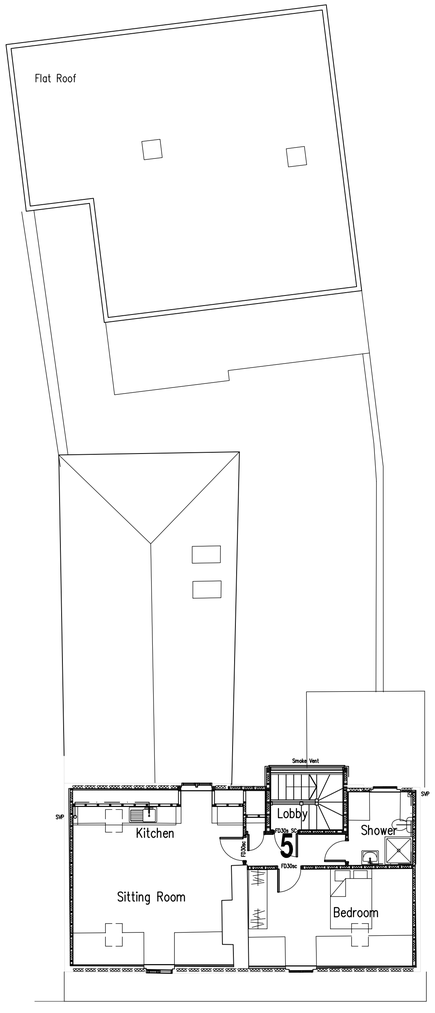
Rev'n
K



Second Floor Plan

As Proposed
1:100

Flat 3 – 65m2
Flat 4 – 64m2



Third Floor Plan

As Proposed
1:100

Flat 5 – 46m2

1m 2m 3m 4m 5m
1:100 Scale Bar

K	Aug 2025	38 – 44 plans added
I	Jan 2024	Layout amended
H	Jan 2024	Planning app 2024
G	June 2022	Reqs issue
F	March 2022	Second / third floors added, elevations removed
E	Feb 2022	Adjacent buildings shown
D	Feb 2022	Terrace reference added
C	Oct 2021	Balconies amended
B	Sept 2021	Balconies added, layout amended
A	Sept 2021	Balconies added, layout amended

Project:
Conversion Of Upper Floors at:
40–42 South Street
Worthing

Drawing title:
Floor Plans
As Proposed

Client:
Geneva Investment Group

Clive Voller Associates
Chartered Building Surveyors
Garden Cottage
Farm Lane
Ditchling
BN6 8UN
Tel: 01444 871010
Fax: 01444 870099
Web: www.clivevoller.com
RICS

Scale:
1:100 @ A1

Date:
Nov 2019

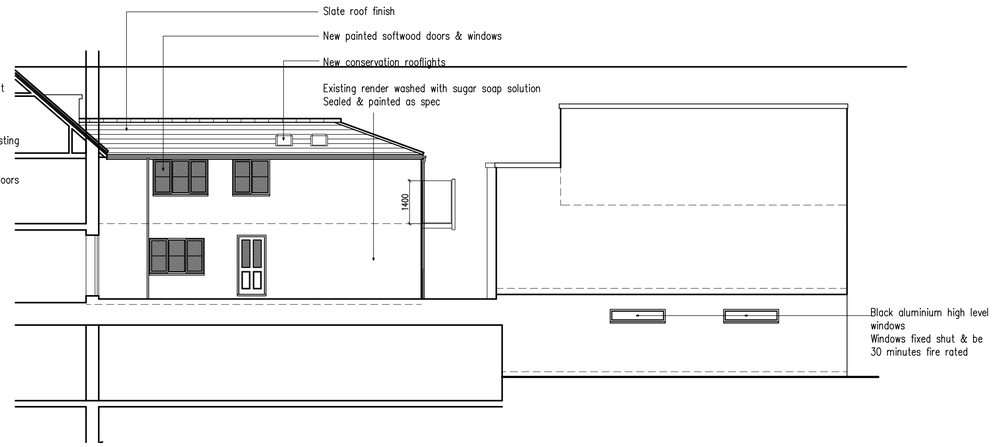
Drawn:

Drg. No. 3927-R-103

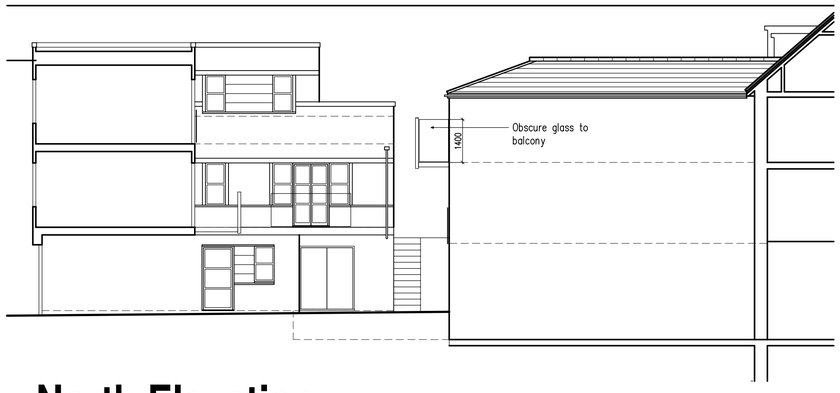
Rev'n K

West Elevation
From South Street
As Proposed
1:100

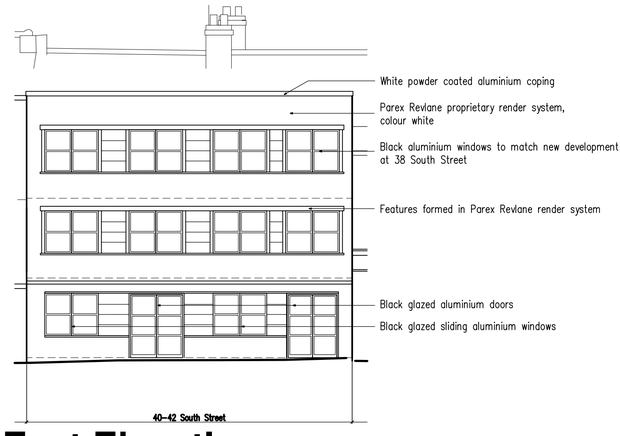
East Elevation
From Courtyard
As Proposed
1:100



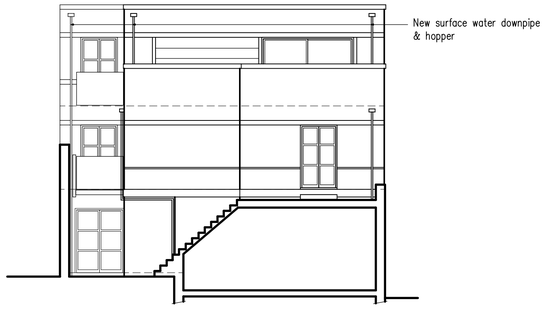
South Elevation
As Proposed
1:100



North Elevation
As Proposed
1:100



East Elevation
As Proposed
From Marine Place
1:100



West Elevation
From Courtyard
As Proposed
1:100

West Elevation (Section Z-Z)
As Proposed
1:100

1m 2m 3m 4m 5m
1:100 Scale Bar

J	Aug 2025	Elevations amended
I	Jan 2024	Planning app 2024
H	June 2022	Regs issue
G	March 2022	Doors amended to east elevation
F	March 2022	Drawing number changed
E	March 2022	Drawing number changed
D	Feb 2022	Section Z-Z added
C	Oct 2021	Balconies amended
B	Sept 2021	Balconies added, layout amended
A	Sept 2021	Balconies added, layout amended

Project:
Conversion Of Upper Floors at:
40-42 South Street
Worthing

Drawing title:
Elevations
As Proposed

Client:
Geneva Investment Group

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RICS

Scale:
1:100 @ A1

Date:
Sept 2015

Drawn:

Drg. No.
3927-R-106

Rev'n
J

Appendix D

Environment Agency Flood Map for Planning

Flood map for planning

Your reference	Location (easting/northing)	Created
Unspecified	**514966/102552**	**10 September 2025 12:37**

Your selected location is in flood zone 3, an area with a high probability of flooding.

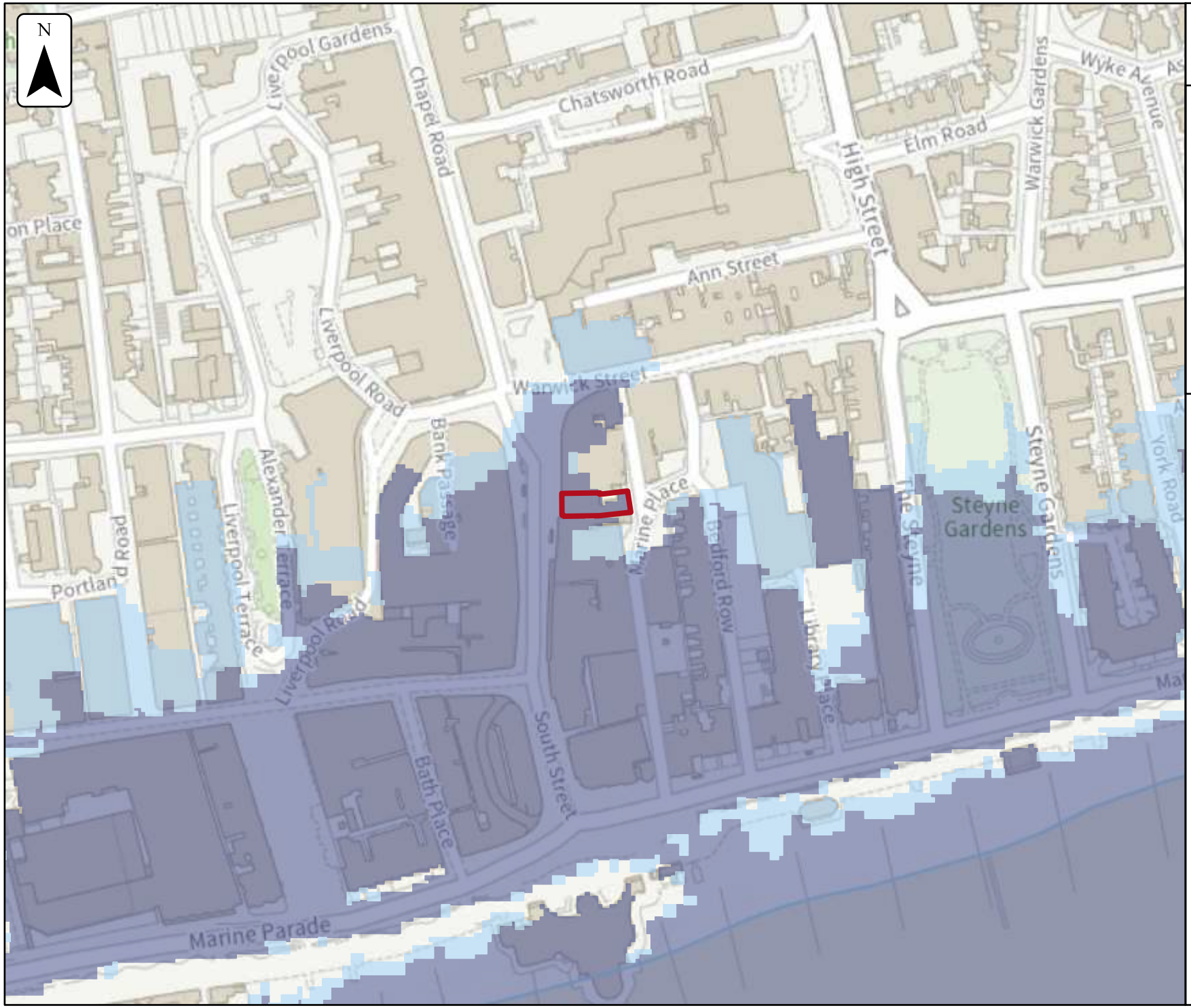
This means:

- you must complete a flood risk assessment for development in this area
- you should follow the Environment Agency's standing advice for carrying out a flood risk assessment (see https://www.gov.uk/guidance/flood-risk-assessment-standing-advice)

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.



Environment Agency

Flood map for planning

Your reference
Unspecified

Location (easting/northing)
514966/102552

Scale
1:2,500

Created
10 Sep 2025 12:37

- Selected area
- Flood zone 3
- Flood zone 2
- Flood zone 1
- Flood defence
- Main river
- Water storage area

0 20 40 60 m

Appendix E

SMP Policy Unit 4d-MU8B

SMP Policy Unit: 4d-MU8B
Survey Unit: 4dSU16

Goring-by-Sea to Lancing

Topographic Beach Profiles 4d00757A – 4d00886

Summary

The Goring-by-Sea to Lancing frontage is a southeast facing stretch backed by residential and commercial properties with Worthing town centre in the middle of the Unit. The frontage has a relatively narrow shingle beach and a gently sloping sandy lower foreshore. In the far east of the Unit, Brooklands Lake marks the mouth of a shallow relict river channel buried under silt and clay drift deposits. Beach material is retained by wooden groyne structures spaced at 35-50m, with rock groynes in the far east of the Unit. In November 2007, approximately 9,800m^3 material was deposited in the far east of the Unit as part of the Lancing Emergency Replenishment Scheme.

Survey Regime

Survey type	Frequency	Survey extent
Topographic baseline	Annual	MLWN
Topographic interim profile	Annual	MLWN
Topographic post-storm	As Required	MLWN
Topographic Beach Management Plan	Annual	MLWN
Bathymetry	5 years	1km offshore
Ortho-photography	3 years	MLWS
Lidar	Rolling Programme	MLWN
Habitat Mapping	2 Years	As Required

Summary of beach operations

Date	Operation	Quantity (m^3)	Location/Notes
2018			
10/04/2018	Boat Ramp Clearance	974	Deposited between 4d00882 - 4d00886
09/04/2018	Boat Ramp Clearance	281	Deposited between 4d00826 - 4d00829
2017			
19/04/2017	Annual Clearance	248	Deposited between two groyne bays east of Worthing Pier (Profile Ref 4d00824 - 4d00825)
2015			
27/03/2015	Annual Clearance	611	Deposited 1/3 to profiles 4d00895 to 4d00897 and 2/3 to profiles 4d00900 and 4d00901
26/03/2015	Annual Clearance	528	Deposited 3/4 to profiles 4d00873 to 4d00876 & 1/4 to vicinity of profile 4d00881
24/03/2015	Annual Clearance	594	Deposited at profiles 4d00817 & 4d00818
2014			
07/03/2014	Annual Clearance	198	Deposited east of boat launching ramp
06/03/2014	Annual Clearance	330	Deposited immediately east of boat launching ramp (4d00882 to 4d00886)
04/03/2014	Annual Clearance	858	Deposited immediately east of boat launching ramp (4d00827 to 4d00830)
2007			
01/11/2007	Lancing Emergency Replenishment Scheme	9,800	Deposited between 4d00760 and 4d00763
2003			
26/03/2003	Beach Office Launching Ramp Clearance Scheme	734	Deposited at 4d00791

Full details of data availability and extents can be found on the Channel Coast Observatory Website (www.channelcoast.org)

Survey frequency

- 1 baseline per year
- 1 profile per year*
- 1 baseline & 1 profile per year
- 1 baseline per 5 years
- 2 profiles per year*

*1 profile replaced by baseline in 2017 or 2018 (depending on lidar coverage)

N

Channel Coastal Observatory

0 20 40 Km

Appendix F

Adur and Worthing Council Response

Phil Allen

From:	Glenn Longley <glenn.longley@adur-worthing.gov.uk>
Sent:	30 September 2021 10:35
To:	Phil Allen
Cc:	Alexander Lindfield
Subject:	Re: Worthing Sea Defence Levels [Filed 30 Sep 2021 10:48]
Categories:	1eceas - East Avenue Goring-by-Sea

Hi Phil,
I can confirm that the Council aims to provide coastal protection from a 1/200 storm event. However as the shingle beach is our primarily coastal defence the level of protection does fluctuate depending on the amount of shingle along the frontage.

The Council uses data provided by the Regional Coastal Monitoring Programme to help maintain the coastal defences.
The Regional Coastal monitoring team undertakes surveys twice a year and publishes the data on their website which is free for anyone to access.

https://coastalmonitoring.org/

I hope that answers your question. If you have any further questions please do not hesitate to contact me.

Regards
Glenn

Glenn Longley
Engineer, Adur & Worthing Councils
Phone: 01903 221377
Email: glenn.longley@adur-worthing.gov.uk
Website: http://www.adur-worthing.gov.uk/
Address: Engineering Team, Town Hall, Chapel Road, Worthing, BN11 1HA

---------- Forwarded message ---------
From: Phil Allen <pallen@motion.co.uk>
Date: Thu, 23 Sept 2021 at 14:09
Subject: Worthing Sea Defence Levels
To: glenn.longley@adur-worthing.gov.uk <glenn.longley@adur-worthing.gov.uk>
Cc: Alexander Lindfield <alindfield@motion.co.uk>

Dear Glenn

I am writing a Flood Risk Assessment for a property in East Avenue, Goring-by-Sea, and I have been informed that I need to discuss the tidal defence levels on Worthing frontage, and what return period the area is protected to.

As the sea defences in Worthing are owned and maintained by Worthing BC, I was hoping you may be able to furnish me with this information, or point me in the direction of someone who can? I used to deal with Brian Curtis many moons ago, but I understand he is no longer Worthing's Coastal Engineer.

Many thanks. I look forward to hearing from you.

Kind regards

Phil Allen MCIWEM C.WEM | Principal Engineer

motion | 84 North Street, Guildford GU1 4AU

t 01483 531300 | e pallen@motion.co.uk | w www.motion.co.uk

LinkedIn | Twitter

Motion has been listed in the Best Professional Property Services Company/Consultancy category for this year's Surrey Property Awards. Have you worked with Motion during the past 18 months? If so, why not show your support for us by clicking on the button below and casting your vote. Many thanks!

Appendix G

Environment Agency 2025 Risk of Flooding from Surface Water (RoFSW) Mapping

Surface Water Flood Risk

Get a boundary report

Edit

Delete

Datasets

- ○ Flood zones 2 and 3
- ◉ Surface water
- ○ None

Annual likelihood of flooding

- ○ 1 in 30
- ○ 1 in 100
- ◉ 1 in 1000

Map features

- ☐ Water storage
- ☐ Flood defence
- ☐ Main Rivers

Get a boundary report

Edit

Delete

Datasets

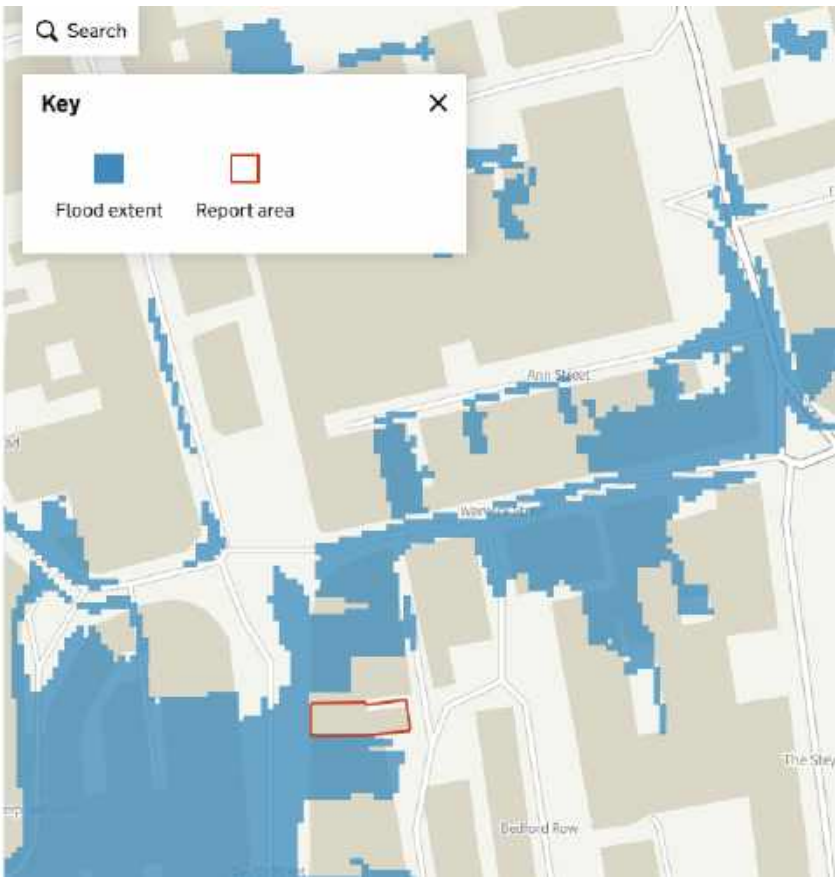
- ○ Flood zones 2 and 3
- ◉ Surface water
- ○ None

Annual likelihood of flooding

- ○ 1 in 30
- ◉ 1 in 100
- ○ 1 in 1000

Map features

- ☐ Water storage
- ☐ Flood defence
- ☐ Main Rivers



Get a boundary report

Edit

Delete

Datasets

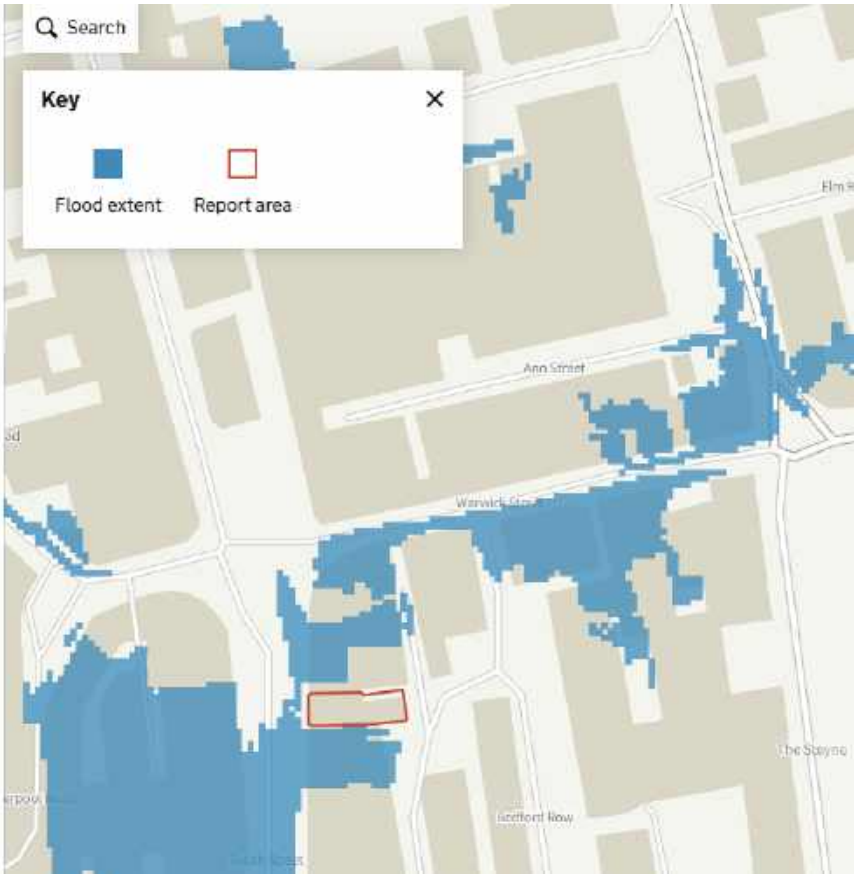
- ○ Flood zones 2 and 3
- ◉ Surface water
- ○ None

Annual likelihood of flooding

- ◉ 1 in 30
- ○ 1 in 100
- ○ 1 in 1000

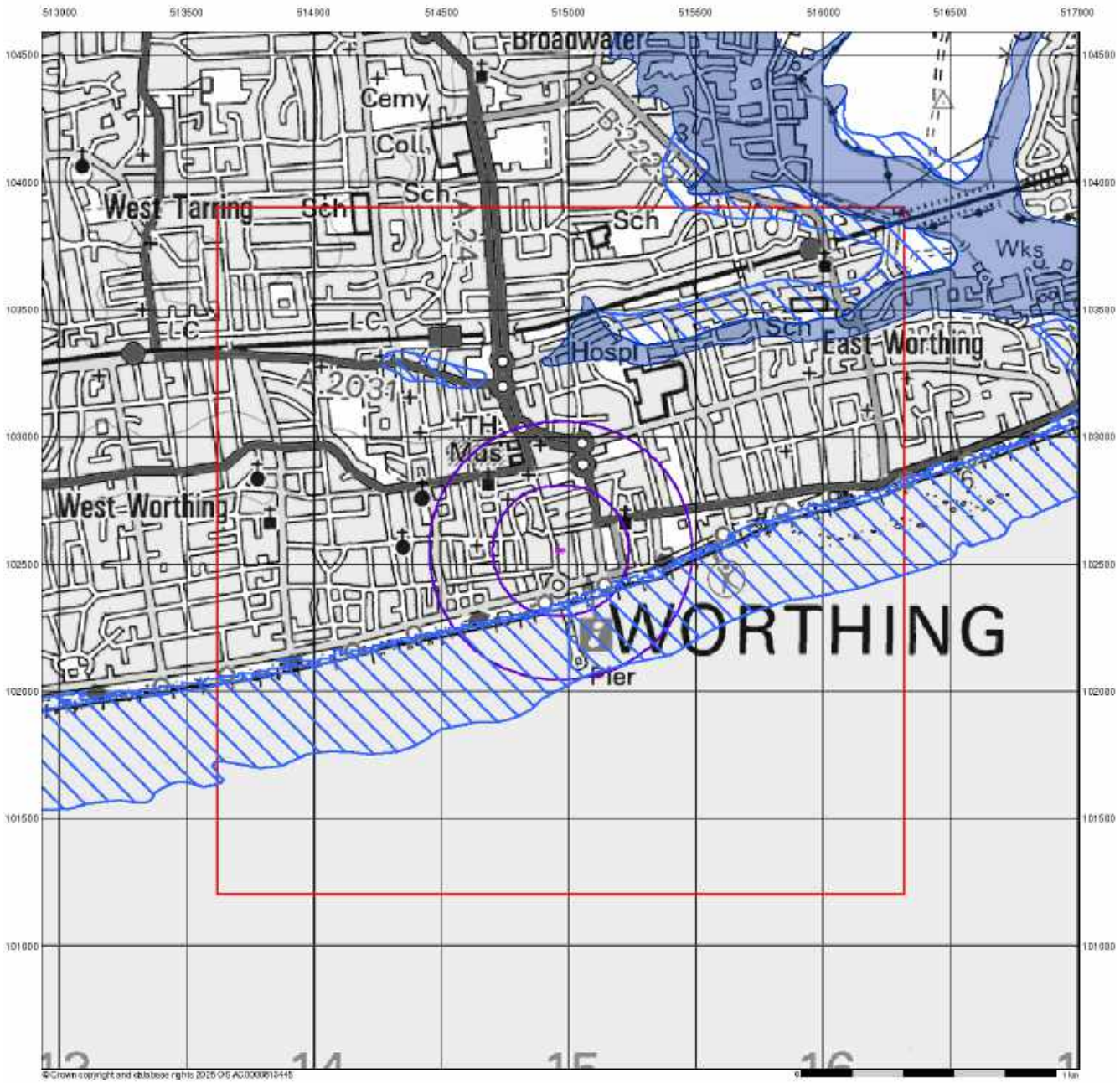
Map features

- ☐ Water storage
- ☐ Flood defence
- ☐ Main Rivers



Appendix H

Groundwater Susceptibility Mapping



motion

BGS Flood Data (1:50,000)

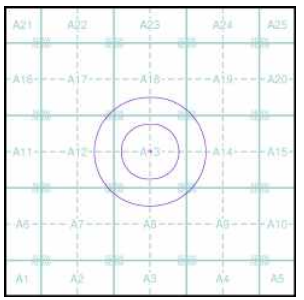
General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

BGS Geological Indicators of Flooding

- Coastal
- Inland
- Bodies of Water

BGS Flood Data Map - Slice A



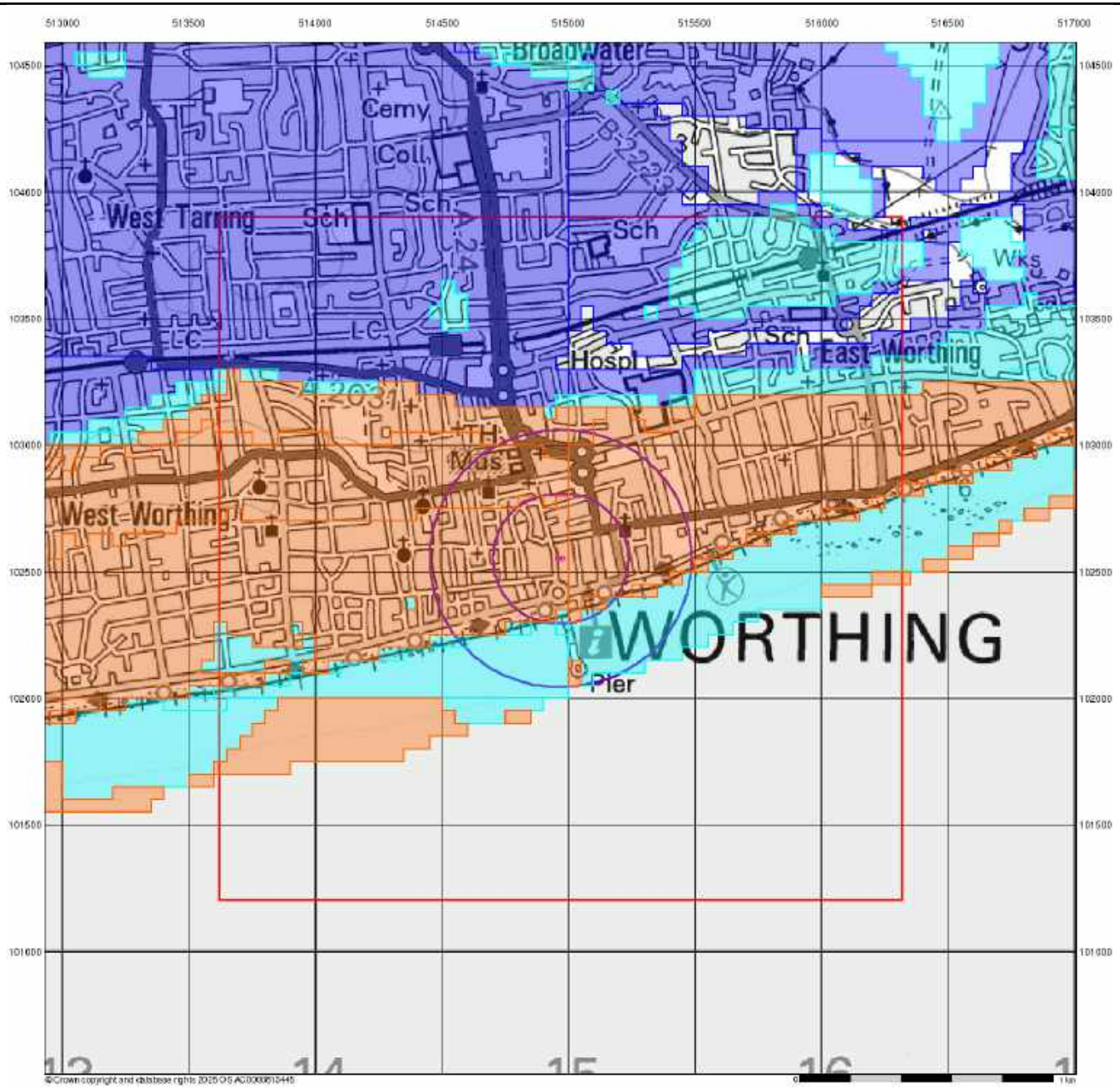
Order Details

Order Number:	384881572_1_1
Customer Ref:	1ecsst/2504027 - LJ
National Grid Reference:	514970, 102550
Slice:	A
Site Area (Ha):	0.04
Search Buffer (m):	500

Site Details

Dolce Heaven Ltd, 40-42, South Street, WORTHING, BN11 3AA

Landmark INFORMATION GROUP
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



motion

BGS Flood Data (1:50,000)

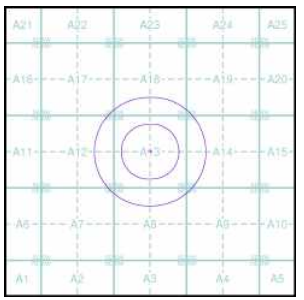
General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

BGS Groundwater Flooding Susceptibility

- Potential for Groundwater Flooding to Occur at Surface
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Limited Potential for Groundwater Flooding to Occur

BGS Flood Data Map - Slice A



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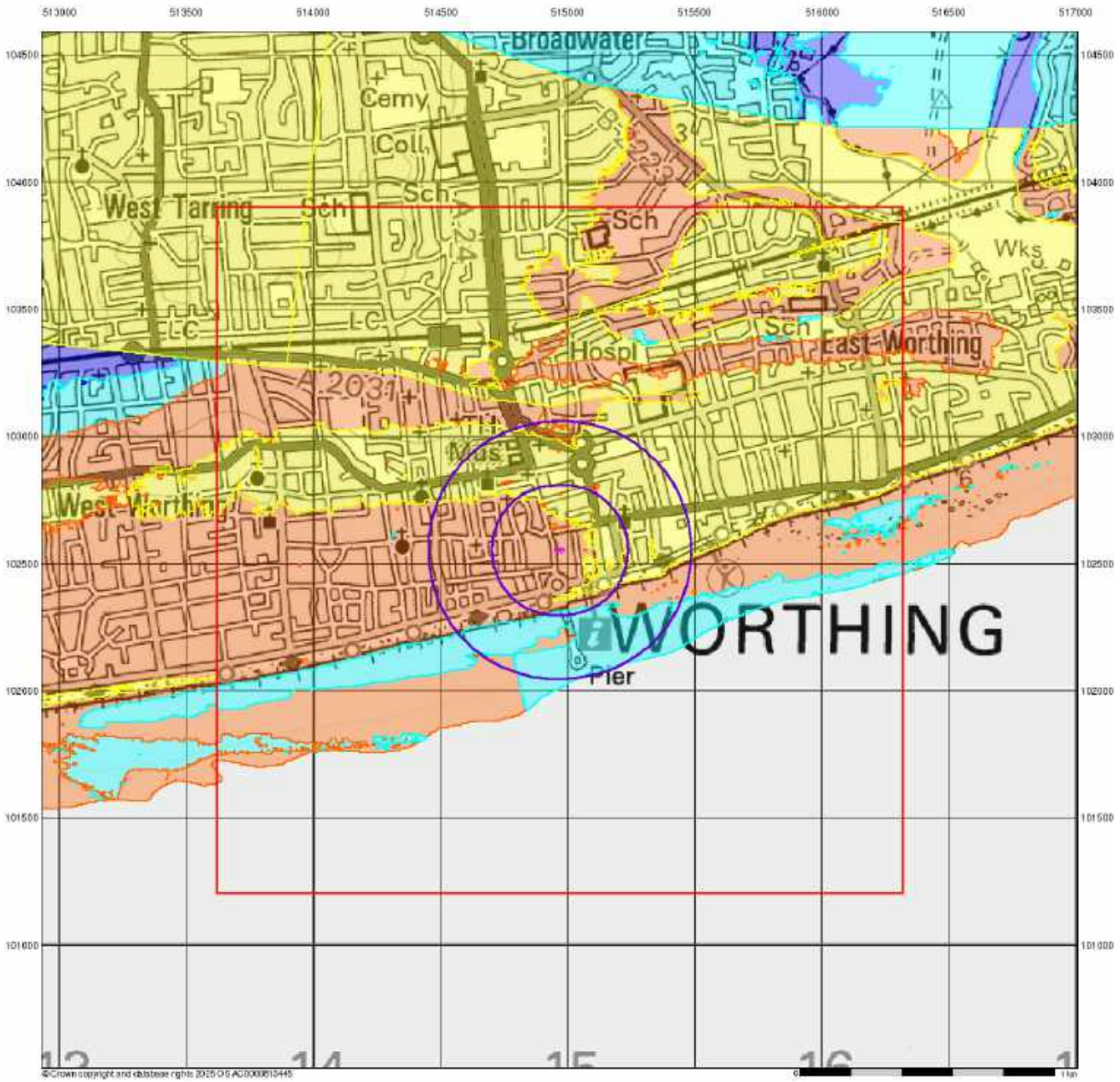


motion

GeoSmart Information Groundwater Flood Map (1:50,000)

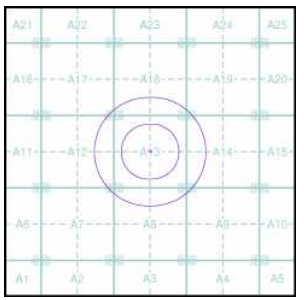
General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice

GeoSmart Information Groundwater Flooding Risk

- High Risk
- Moderate Risk
- Low Risk
- Negligible Risk

GeoSmart Information Groundwater Flood Map - Slice A



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National Grid Reference:	514970, 102550
Slice:	A
Site Area (Ha):	0.04
Search Buffer (m):	500

Site Details

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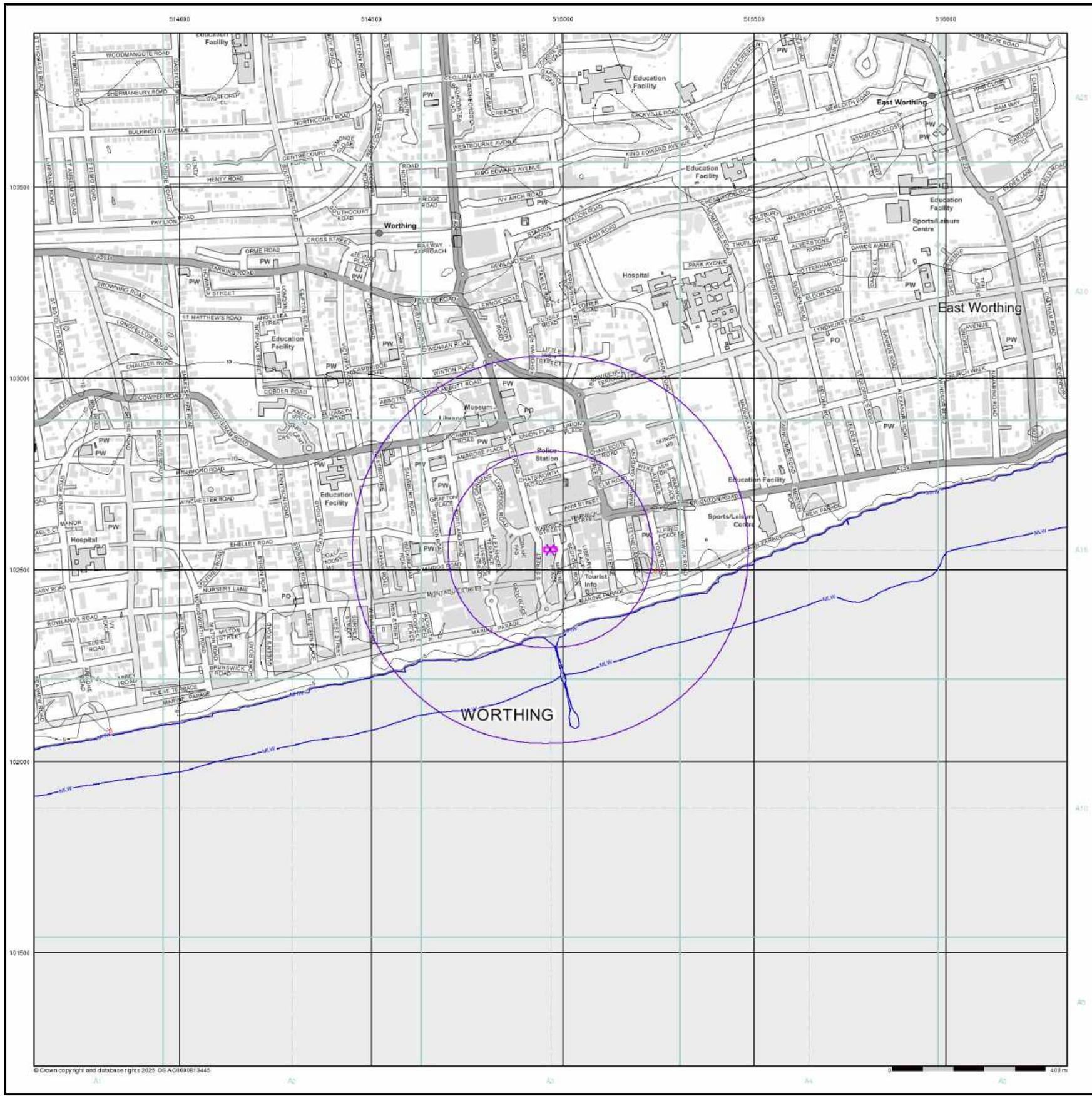
Appendix I

Historical Flood Map



motion

EA/NRW Historic Flood Map (1:10,000)

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID

Historic Flood Events Data

- Channel Capacity Exceeded (no raised defences)
- Channel Capacity Exceeded /Surface Water
- Groundwater/High Water Table
- Local Drainage/Surface Water
- Mechanical Failure
- Obstruction/Blockage - Bridge
- Obstruction/Blockage - Channel
- Historical Flood Liabilities
- Obstruction/Blockage - Culvert
- Obstruction/Blockage - Debris Screen
- Operational Failure/ Breach of Defence
- Other
- Overtopping of Defences
- Surface Water
- Unknown

Contours (height in metres)

Standard Contour 105 100 95

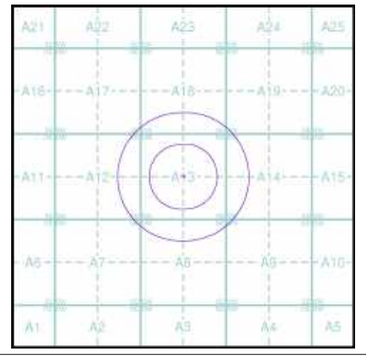
Master Contour

Spot Height *167.8

MLW Mean Low Water

MHW Mean High Water

EA/NRW Historic Flood Map - Slice A



Order Details

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Customer Ref:	1ecsst/2504027 - LJ
National Grid Reference:	514970, 102550
Slice:	A
Site Area (Ha):	0.04
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Site Details

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Web: www.envirocheck.co.uk

Appendix J

Flood Warning and Emergency Plan

40 - 42 South Street
Worthing

Flood Warning and Emergency Plan

For

Geneva Investment Group Ltd

motion

Document Control Sheet

40 - 42 South Street

Worthing

Geneva Investment Group Ltd

This document has been issued and amended as follows:

Date	Issue	Prepared by	Approved by
16th September 2025	FINAL A	Laura Jagiela	Phil Allen MCIWEM C.WEM

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Contents

Appendices

1.0 Introduction

1.1 This Flood Warning and Emergency Plan (FWEP) has been produced as part of the Flood Risk Assessment that is in support of the proposed development on the site of 40 - 42 South Street, Worthing.

1.2 The site is within Tidal Flood Zone 3. It is important that the users of 40 - 42 South Street are aware of the flood risks that can potentially affect the site, so that staff, residents and visitors therein are able to prepare, react to and recover from a flood event. This FWEP provides all relevant information and procedures necessary to achieve the above.

1.3 This FWEP is a living document, and the users of the 40 - 42 South Street development are responsible for its ownership, maintenance and implementation. All stakeholders to the FWEP should be aware of any changes of circumstance that may materially affect the FWEP content and require it to be reviewed and updated.

1.4 This FWEP should be reviewed:

- Following receipt of the document;
- Every three years thereafter;
- As a result of lessons learned after drills and events;
- Following changes of management or modification of the premises, and;
- Following changes to the flood warning process.

1.5 Motion acknowledges that this FWEP is suitable for the purposes set out in the National Planning Policy Framework (NPPF) and the Planning Practice Guidance (PPG). This FWEP, however, is the sole responsibility of the users of 40 - 42 South Street and/or their representatives. Motion cannot accept any responsibility for any omission or error contained in any such pain, or for loss, damage or inconvenience that may result from the FWEP's implementation.

2.0 Objectives

2.1 This FWEP has been produced with the following objectives:

a) To highlight how flooding can occur;

b) To outline the flood warning process, including how to receive alerts and understand the different flood warning codes;

c) To give recommendations on how to take action in a flood event and what mechanisms need to be in place to ensure that action can happened safely and in a co-ordinated manner;

d) To establish robust procedures to move residents, visitors and staff to a place of safety, including establishing a safe evacuation route to a place of refuge;

e) To make recommendations for things that can be done to ensure a swift recovery from flooding, and;

f) To establish clear procedures for the implementation and maintenance of this plan.

3.0 Situation

3.1 40 - 42 South Street currently consists of a dessert shop on part of the ground floor with the rear area being unused. The upper floors are currently empty/unused but were previously used as store rooms for the retail unit. The postcode of 40 - 42 South Street is BN11 3AA and the Grid Reference is TQ 14963 02536. A site location plan of 40 - 42 South Street can be seen in **Appendix A**.

3.2 The proposal is for the conversion, alteration, extension and demolition of the existing building to extend the ground floor commercial floorspace as well as include 9no. residential flats across the ground, first, second and third floors.

3.3 The number of people on site is variable and depends on the number of staff on shift, the number of residents at the time and the number of visitors on the premises. Pedestrian access and egress routes in non-flooded events are from South Street or Marine Place.

3.4 Flood risk to 40 – 42 South Street, from all sources, have been discussed extensively in the FRA for the site, which this FWEP is appended to.

4.0 Preparing For Flooding

4.1 There are many ways in which users of 40 - 42 South Street can prepare for flooding. By planning a response to a flood event, it will not only ensure that all users of 40 - 42 South Street can respond quickly and effectively to flooding, but also recover with as little disruption as possible.

4.2 The following recommendations are not exhaustive. However, they provide a good basis for planning for flooding and suggest ways to respond robustly and efficiently to a flood event.

4.3 As discussed above, this FWEP should be a living document. The users of 40 - 42 South Street are encouraged to add and amend this section as their understanding of how to plan for and react in a flood event evolves. This may be during a 'lessons learned' workshop following drills or after an actual flood event.

Command and Control

4.4 A key factor in providing a timely and co-ordinated response to flooding is to ensure all staff members and non-visiting personnel in the building are clear on their roles and responsibilities. These roles should be covered across all shifts. Therefore, it is recommended that 40 - 42 South Street has nominated flood wardens.

4.5 The flood wardens should:

- Be intimately familiar with this document's recommendations and procedures so that, in a flood event, all necessary actions can be executed in a timely and co-ordinated manner.
- Understand and utilise the flood warning information available and ensure that the staff stay informed of weather conditions.
- Understand and be able to interpret the flood warning codes (discussed later in this document) and know when to act.
- Communicate flood warnings to other staff and visitors.
- Delegate tasks to other staff member so that they can assist in a flood event.
- Create a list of the residents of 40 - 42 South Street paying particular attention to the most vulnerable people.
- Develop a prioritised response to flooding so that in the event that there is a short lead-in between a flood warning being issued and the onset of flooding occurring, the most important tasks and most vulnerable people can be dealt with first.
- Decide whether it is better to remain on the premises (following advice from emergency services) or evacuate during a flood event.
- Lead staff, residents and visitors away from the building during an evacuation to a safe, dry refuge or muster point.
- Create a role call of staff, residents and visitors so they can be 'checked in' at the muster point.
- Schedule and lead practice evacuations and drills.
- Know the cut-off points for gas, electricity and water within the building.
- Liaise with emergency responders and the LPA as and when necessary.
- Ensure that this document is updated and amended as per the above schedule, or as and when necessary.

- Develop a flood response plan, covering the above.

4.6 The flood warden's role should be updated and reviewed on a regular basis.

Communication & Contacts

4.7 A list of information and service providers that may need to be contacted in a flood event needs to be assembled. This may include (but not be limited to) the below, which are not in any specific order of importance:

- The Environment Agency Floodline
- The emergency services
- The electricity supplier (inc. the meter number)
- The gas supplier (inc. the meter number)
- Southern Water (inc. the account number)
- The telephone provider
- Worthing Borough Council emergency planning
- The contents and building insurance company's 24-hour number (and the policy number)
- The local radio station for news alerts and weather updates
- Employee details, including mobile phone numbers and their emergency contact numbers

4.8 It also recommended that the Flood Warden compiles contact details of companies that may be able to help after flooding has receded and it is time to return to normal business. These companies should be considered in advance and are a key part of the recovery plan. It is recommended that companies are chosen who are local to South Street, but not in areas that may also be impacted by flooding. The companies that may be able to help after a flood include:

- Electricians
- Plumbers
- Builders
- Equipment repair/suppliers
- IT suppliers
- Security services
- Water pumping services
- Emergency power suppliers
- Cleaning contractors

4.9 The table in **Appendix B** of this FWEP has been provided so that a list of the above contacts can be gathered and recorded in advance of a flood event.

Flood Warning Services

4.10 It is imperative that users of 40 - 42 South Street prepares for flooding by signing up to the Environment Agency's Flood Warning service. In areas of high flood risk, the Environment Agency offers a service

called Floodline. It is a free service that sends automated flood warnings by telephone, SMS text or email. This service operates 24-hours a day, 365 days a year.

4.11 To receive this service, call Floodline on 0345 988 1188 or visit https://www.gov.uk/sign-up-for-floodwarnings.

4.12 There are several flood warning 'codes'. Each code represents a different level of warning according to the current likelihood of flooding and recommends an action to take. The flood warning codes can be issued in any order, usually ending with an 'all clear' once the risk of flooding has passed.

4.13 Flood warnings are triggered by particular weather events and the current situation on rivers. Flood Warnings are issued as far in advance as possible, which should allow for a timely and co-ordinated response. Notwithstanding this, it should be borne in mind that flood warnings may not always be possible to issue too far in advance where the onset of flooding is rapid. In this scenario, where time to react and prepare for flooding is limited, a system of prioritisation will be necessary. This should have been covered as part of the flood warden's responsibilities and flood response plan.

4.14 A guide to the Environment Agency's flood warning codes can be found in **Appendix C**. It is recommended that this is printed and put on display within 40 - 42 South Street. The flood warden and all users should familiarise themselves with these codes and the recommended actions.

Familiarisation & Practice

4.15 The successful implementation of this FWEP is dependent on the flood warden and other staff being familiar with its contents and recommendations, which follow the latest guidance from the NPPF and its supporting PPG. It is also recommended that all staff have rehearsed, where possible, the procedures contained within this FWEP, much like a fire drill is practiced. This should be rehearsed at regular intervals.

4.16 Consideration should be given to the fact that evacuations may have to take place while visitors are in the building, some of whom may have disabilities, mobility problems or issues with communication, and while the weather is inclement. Practice evacuations should simulate this.

4.17 It may be prudent to add flood safety information to staff information and induction packs or adapt job descriptions to include flood warden and flood warden support duties.

Key Locations

4.18 It is imperative that the flood warden knows the location of cut-off points for gas, electricity and water. Ideally, these should be marked on a floor plan, and this should be stored with this FWEP. The production and maintenance of this plan is the responsibility of the flood warden.

4.19 Space for the storage of this plan has been provided in **Appendix D**.

4.20 The location of any materials or chemicals on site that may contaminate flood water should also be known and marked on the same plan.

Insurance

4.21 The buildings and contents insurance policies need to be up-to-date and reflect the fact that 40 - 42 South Street is in a flood zone. Failure to do so could leave users of 40 - 42 South Street uninsured. It is worth knowing what information the buildings and contents insurer will need to support a claim and in what timescale this must be submitted to be valid. This should be done in advance and be reviewed by the flood warden and/or the building management team.

5.0 Taking Action

5.1 With the above preparation measures in place, it should allow users of 40 - 42 South Street and the designated flood warden to plan for and react to a flood. The following actions, in addition to those recommended in the Environment Agency's Flood Warning information in **Appendix C**, should be carried out in response to a flood event when action is necessary.

5.2 40 - 42 South Street should consider the following actions alongside the regulations set out by the Care Quality Commission (CQC), in order to provide the appropriate care to the residents during a flood event.

5.3 Not all the following actions can be carried out by an individual and, therefore, a co-ordinated team response may be necessary. The flood warden should lead the response and delegate responsibilities as required.

Sound the Alarm

5.4 During a flood event the flood warden should be in close contact with the Environment Agency, either in person or through the automated flood warning services. The flood warden should also be monitoring weather forecasts.

5.5 When a 'Flood Alert' is sounded, the flood warden should start preparing for flooding.

5.6 If a 'Flood Warning' or 'Severe Flood Warning' is issued, it is time to act.

5.7 The first action to take is to communicate the flood warning to staff, residents and visitors and, following advice from the emergency services and bearing in mind the CQC regulations, start preparing for evacuation.

Resident and Visitor Evacuation

5.8 Evacuation should only be carried out if it is safe to do so and it has been instructed by the emergency services.

5.9 If access/egress routes from the building are threatened by flooding then it is important to stay in a safe, dry place that requires no intervention or rescue from the outside. The emergency services will be at full-stretch during a flood event and all efforts should be taken to avoid placing an additional burden on them at this time.

5.10 If evacuation is possible, instructed and necessary, as soon as the 'flood warning' code is received the first priority must be to evacuate the residents and visitors. Residents and visitors should be informed in a calm and confident manner and prompted to leave the building via the access/egress routes specified later in this FWEP to the specified muster point.

5.11 It should be assumed that visitors will not have local knowledge and will need to be guided to the muster point. There may also be individuals who have disabilities, mobility problems or issues with communication. Special support and assistance should be made available to these individuals.

5.12 Pedestrians should be escorted from the building to a muster point that is safely outside of the high-risk flood area. The escorting person should be nominated by the flood warden and should be familiar with the FWEP. The suggested pedestrian egress route is out the rear of the building, onto Marine Place, head north on Bedford Row and then head east on Warwick Street.

5.13 A map of this route can be seen in **Appendix E**.

5.14 An evacuation is only possible when there is sufficient time between a warning being issued and the onset of flooding. During a rapid onset flood event, there may be insufficient time to evacuate, which is typically the case with surface water flooding. In these circumstances it is may be possible to remain on site and all persons should move to the upper floors.

5.15 If it is decided that it would be safer to remain within the building, a risk assessment should be completed. It should evaluate how many people can be accommodated and the resources/equipment that are necessary to sustain them for the expected duration of the flood. The emergency services should also be informed and involved in this decision at the earliest convenience.

5.16 Any supplies should be taken to the upper floors, which might include food, water and facilities that can substitute to a WC should one not be available.

Staff Evacuation

5.17 Once residents and visitors have been evacuated the next priority is to ensure staff safety. The evacuation routes suggested above should also be used by staff. The flood warden should coordinate the staff evacuation whilst retaining enough personnel to assist them in shutting down and making the premises safe. This process is outlined, below, and should provide an idea of how much assistance the flood warden will need.

Protective Actions

5.18 Identify stock, equipment and possessions that may need special protective measures. Computers should be properly shut down and any important data should be backed up. Other electrical items should be switched off and moved to a safe location.

5.19 Gas, electricity and water supplies should be switched off. Any materials or chemicals on site that may contaminate flood water should be stored safely away from flood water and other sources of damage.

5.20 Prior to leaving the site, any demountable flood barriers should be installed to prevent ingress of floodwaters.

Key Contacts

5.21 Review the prepared list of key contacts (**Appendix B**) as prompted by the list in Paragraph 4.8 of this FWEP and make only essential calls. Retain the list of key contacts to take off-site during the evacuation.

Security

5.22 Once the building has been evacuated, the flood warden should carry out a floor check to ensure that there are no remaining persons within the building. Once is it confirmed that the building is empty, all windows and doors need to be locked and the intruder alarm set. The flood warden and any remaining assistants should then stay together and make their way to the safe, dry refuge via the evacuation routes outlined in Paragraph 5.12.

6.0 During Flooding

6.1 During the flood event, the flood warden should keep up to date with weather and flood conditions. They should stay in contact with the emergency services, weather forecasts, the Environment Agency's Flood Warning service and local television and radio broadcasts for the latest information.

6.2 The flood warden, staff and residents should stay away from 40 - 42 South Street and should only be allowed to re-enter the building once it has been cleared to do so by the emergency services and the Environment Agency's Flood Warning service has issued an 'all clear' notice.

6.3 While the building is out of use, it is important that residents' family member are informed of the situation and kept up to date with what is going on.

7.0 Recovery

7.1 Recovery will be co-ordinated by Worthing Borough Council, The Environment Agency and the emergency services.

7.2 If there's been a serious flood, Worthing Borough Council may have chosen a place like the town hall as a 'flood hub' from which to organise recovery efforts. There may be a nearby community flood warden or flood action group. Contact the **National Flood Forum** for help in finding local support on **01299 403055**.

7.3 The re-opening of 40 - 42 South Street will be reliant on a number of factors. This includes:

- The duration of the flood event and when flooding is likely to recede;
- Presence of environmental hazards such as contaminated floodwater and sewage;
- Loss of utilities;
- Building damage;
- Damage to equipment/infrastructure;
- Cleaning/renovating needs, and;
- The risk of more flooding due to subsequent weather conditions;

7.4 With the above factors in mind, the emergency services must give their go-ahead prior to the building being reoccupied. The flood warden should keep in touch with the emergency services and follow their advice during and after the flood event. Staff should only re-enter the building when the emergency services say it is safe to do so.

7.5 Drains fitted with non-return valves need to be checked following a flood to ensure that they are not blocked open by silt or other debris. Failure to do this risks them not functioning properly in a future flood event.

Cleaning Up

7.6 Once the area and building are safe to access, it may be necessary to do some cleaning up on site depending on the level of the flood event and how much floodwater ingress has taken place. In this circumstance photographs must be taken to document damage and to record the flood water height. The insurer should be contacted before discarding items that cannot be cleaned.

7.7 Worthing Borough Council should help with collecting large flood damaged items. They will be able to provide information on where to put them and when they may be collected.

7.8 Items can be discarded by the usual means if they are not polluted. Worthing Borough Council should be contacted if skips or extra rubbish collections are required.

7.9 Flood water may contain sewage, chemicals and animal waste, which can cause disease. Personnel cleaning either in or around the property after a flood event should always wear gloves, a face mask and sturdy PPE footwear.

7.10 The colour, taste and smell of tap water should be monitored and, if it changes, it should be stopped being used immediately and Southern Water should be informed.

Repairs

7.11 The buildings and contents insurers should be contacted before any repairs or replacements of damaged items commences. Most repair work after flooding will need to be done by approved traders appointed by your insurer.

7.12 If heaters or dehumidifiers are used to dry out the buildings, there must be good ventilation. Petrol or diesel-powered generators should never be used indoors; their exhaust gases contain potentially lethal carbon monoxide.

8.0 Recommendations

8.1 This FWEP has made a number of recommendations, which are summarised here for easy reference.

- Appoint a flood warden and allow for their training and familiarisation with this FWEP. They must be familiar and prepared for their role during a flood event.
- Populate the essential contacts list in **Appendix B** of this FWEP and add any additional contacts as necessary.
- Make a floor plan of utility cut-off points and store it within **Appendix D** this FWEP.
- Schedule and practice flood evacuations, much like a fire drill.
- Treat this FWEP like a living document that needs to be regularly reviewed and updated. Users of 40 - 42 South Street are encouraged to add and amend this document as their understanding of how to react in a flood event evolves.
- Make copies of this FWEP accessible to staff and visitors.
- Print off the Flood Warning information in **Appendix C** and display it in a place the staff and visitors can see it.
- Familiarise all staff with the contents and procedures of this document and why it exists.
- Understand any CQC regulations on the evacuation and movement of vulnerable persons, which may be necessary during a flood event.

9.0 Useful Sources of Information

Environment Agency Flood Map for Planning:

https://flood-map-for-planning.service.gov.uk/

How to plan ahead for flooding:

https://check-for-flooding.service.gov.uk/plan-ahead-for-flooding

Sign up for flood warnings:

https://www.gov.uk/sign-up-for-flood-warnings

Flood Warnings for England:

https://check-for-flooding.service.gov.uk/?location=+

River and sea levels in England:

https://check-for-flooding.service.gov.uk/river-and-sea-levels

Prepare for flooding:

http://www.environment-agency.gov.uk/business/topics/flooding/32358.aspx

Prepare your business for flooding:

https://www.gov.uk/government/publications/preparing-your-business-for-flooding

What to do in a flood:

https://check-for-flooding.service.gov.uk/what-to-do-in-a-flood

How to recover after a flood:

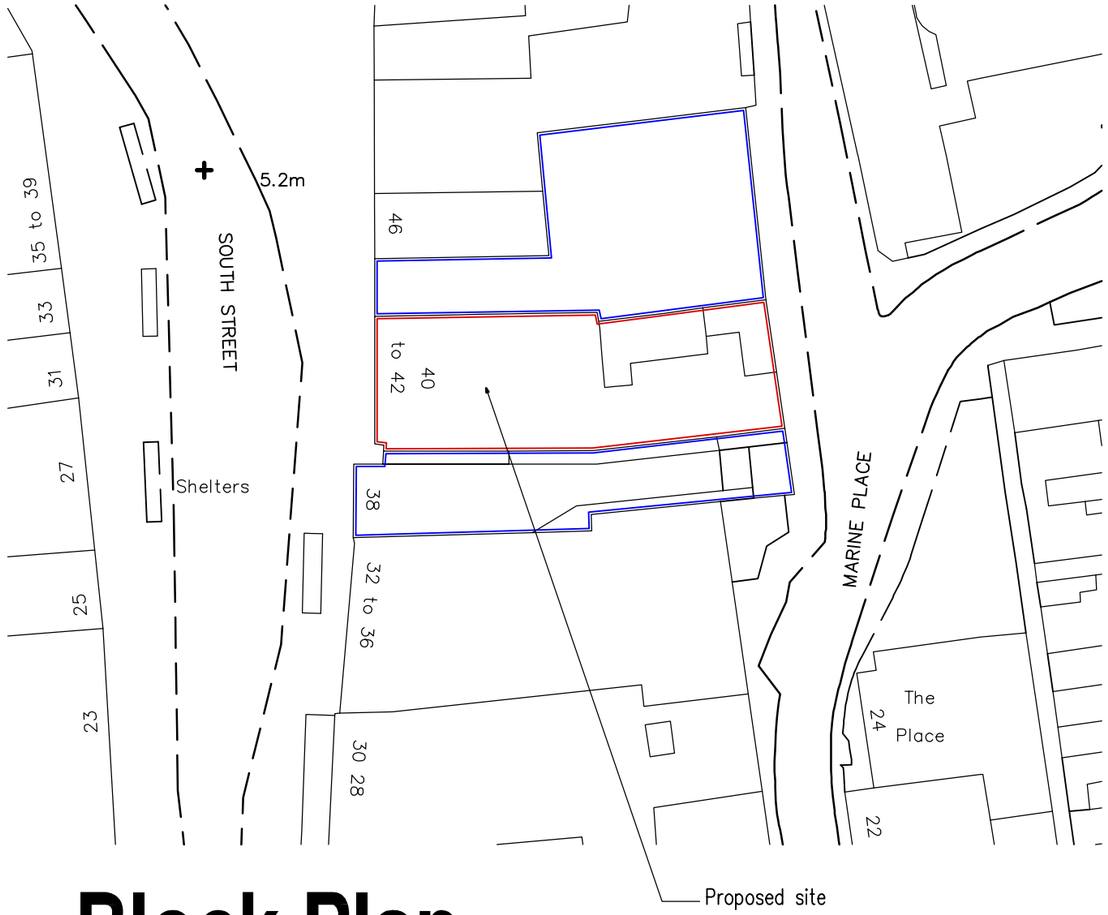
https://check-for-flooding.service.gov.uk/recovering-after-a-flood

The National Flood Forum:

https://nationalfloodforum.org.uk/

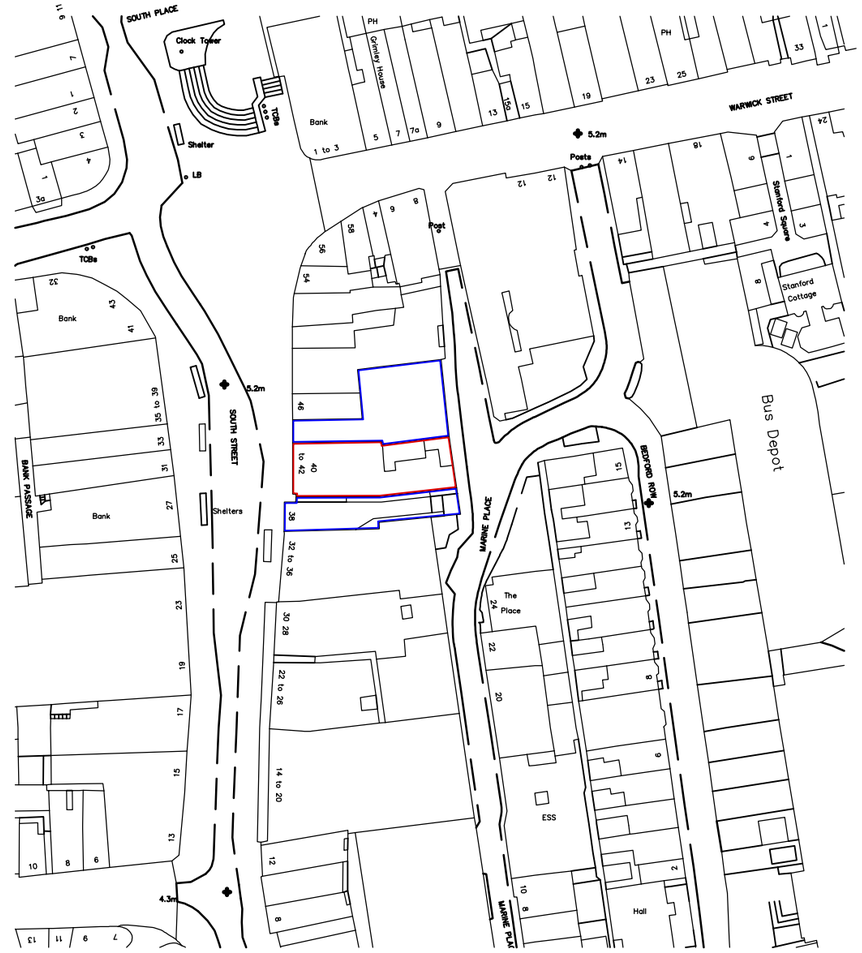
Appendix A

Site Location Plan



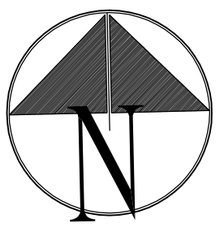
Block Plan

1:500



Location Plan

1:1250



1:500 Scale Bar

1:1250 Scale Bar

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40–42 South Street
Worthing

Title:
Block & Location Plans

Client:
Geneva Investment Group

Scale:
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Appendix B

List of Useful Contacts

Service Type	Service Provider	Telephone Number	Website Address	E-mail Address	Other/Notes
Electrician					
Plumber					
Builders					
Equipment Supplier					
IT Supplier					
Security Services					
Water Pumping					
Emergency Power Supplier					
Cleaning Contractors					
Skip Suppliers					

Appendix C

Environment Agency Flood Warning Codes and What They Mean

Flood Warnings

A guide to the Environment Agency's flood warning codes

A User Guide for Emergency Responders
Version 1.0 – November 2012

We are the Environment Agency. We protect and improve the environment and make it a better place for people and wildlife.

We operate at the place where environmental change has its greatest impact on people's lives. We reduce the risks to people and properties from flooding; make sure there is enough water for people and wildlife; protect and improve air, land and water quality and apply the environmental standards within which industry can operate.

Acting to reduce climate change and helping people and wildlife adapt to its consequences are at the heart of all that we do.

We cannot do this alone. We work closely with a wide range of partners including government, business, local authorities, other agencies, civil society groups and the communities we serve.

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Further copies of this report are available from our publications catalogue:
http://publications.environment-agency.gov.uk
or our National Customer Contact Centre:
T: 03708 506506

Email: enquiries@environment-agency.gov.uk.

What counts in a flood is good information you can act on…

Whether we like it or not, floods happen. Over the years, forecasting techniques have improved, giving us more time to prepare for flooding. The Environment Agency is here to help. We are responsible for issuing flood warnings throughout England and Wales. However, after 1 April 2013, the Environment Agency will issue warnings for England and Natural Resources Wales will issue warnings for Wales.

We help by:

- Building and maintaining flood defences.
- Issuing flood warnings.
- Working with partners on multi-agency flood response.
- Sharing accurate flood risk information and advice.

What is this user guide for?

This user guide has been prepared with the aim of increasing our partners' awareness and understanding of the flood warning codes used when we issue flood warnings. In turn, this will improve how we all prepare for flooding. This material should be referred to on a regular basis to ensure responding organisations are fully aware of what the flood codes mean and know what actions to consider when a warning is issued for a particular area of interest. This user guide can also be used to find out how the warnings are issued.

This document has been developed as part of the Joint Responder Training Project 2012. It is intended to be used by strategic, tactical and operational responders as self-taught guidance material.

Our flood warning codes – an overview

The Environment Agency provides a free flood warning service throughout England and Wales in areas at risk of flooding from rivers or the sea. In some parts of England we also provide a flood warning service for flooding from groundwater. Using the latest available technology, our staff monitor rainfall totals, river levels and sea conditions 24 hours a day and use this information to forecast the possibility of flooding. We issue warnings using the following three different codes:

- Flood Alert;
- Flood Warning;
- Severe Flood Warning.

Each warning type is triggered by particular weather, river or sea conditions which cause flooding. Emergency responders need to understand our flood warnings and know how to respond when they receive them.

During an event, responders should not assume that a Flood Alert will always be upgraded to a Flood Warning, and this in turn upgraded to a Severe Flood Warning.

It is important to note that after 1 April 2013, the Environment Agency will issue warnings for England and Natural Resources Wales will issue warnings for Wales.

How are warnings issued?

Flood warnings are available to emergency responders, media organisations and the public. There are a number of ways in which this information can be received, including the following:

- **Direct to you** - receive warnings by phone, text, email or fax. Sign up for our free Floodline Warnings Direct service by calling Floodline on 0845 988 1188 or by visiting our website;
- **On our website** - view up-to-date flood information, monitor the river or sea levels in your area and check our latest flood risk forecast for your area by visiting our website www.environment-agency.gov.uk/flood;
- **By calling Floodline on 0845 988 1188** – listen to recorded information on the latest warnings and predictions or speak to an operator for more general information 24 hours a day. Our operators can also provide a quickdial number which gives you faster access to information for your area. Responders can also contact their local Environment Agency Flood Resilience team for further information and advice by calling 03708 506 506;
- **Through the media** - you may see or hear our warnings on television and in radio broadcasts;
- **Flood Wardens** - in some areas Flood Wardens are there to alert and support their local community when a flood warning is issued. Contact your local Environment Agency Flood

Resilience team for to find out if this service is available in your area or for further information and advice by calling 03708 506 506;

- **Sirens/loudhailers** - in some areas we use loudhailer or siren systems to warn people that a flood warning has been issued. Contact your local Environment Agency Flood Resilience team to find out if this service is available in your area or for further information and advice by calling 03708 506 506;

- **Flood warning feeds** - Flood warning (RSS) feeds shows national and regional flood warnings in force and are updated every 15 minutes. The feeds contain a brief summary and link to the full information on our website;

- **Targeted Flood Warning Service** – The Targeted Flood Warning Service (TFWS) is a web-based flood warning service to provide Category 1 and 2 responders with a more targeted and efficient service. This service provides email notifications and displays flood warnings relating to relevant assets stored within the system. Category 1 responders are able to get this service for free and at a low cost for Category 2 responders. You can register by calling the Environment Agency on 03708 506 506 or by speaking to your local Environment Agency Flood Resilience team;

- **Flood Warnings For Infrastructure** – The Flood Warnings For Infrastructure (FWFI) service has been set up to make it as easy and flexible as possible for organisations to access our data and information and for tailored flood warning products, applications and services to be developed. Individuals or organisations are licensed to access our live flood warning data and Geographical Information System (GIS) data / polygons. For further information or to register your interest in accessing our data, visit our 'FWFI' webpage, email commercial.services@environment-agency.gov.uk or call 03708 506 506;

- **Social media / Smartphone Apps** – Flood warning updates can also be received using a number of social media sources, such as Facebook (www.facebook.com/environmentagency) and Twitter (@EnvAgency). Various Smartphone Apps are now available to provide flood alerts for a specific location. These services are largely intended to be used by the public, providing access to live flood warning information;

- **Live Flood Warning map** – This is a map-based view of live flood warnings and is available on our website. Users can zoom into a specific location of interest to see which flood alerts and warnings have been issued.

Know your flood warning codes

The following table provides information on the flood warning codes for emergency responders and for each it details:

- What it means;
- When it's used;
- Triggers;
- Impact on the ground;
- Advice to the public/media;
- Advice to operational organisations and emergency responders.

 FLOOD ALERT	 FLOOD WARNING	 SEVERE FLOOD WARNING	**Warning no longer in force**
What it means **Flooding is possible.** **Be prepared.**	**What it means** **Flooding is expected.** **Immediate action required.**	**What it means** **Severe flooding.** **Danger to life.**	**What it means** **No further flooding is currently expected for your area.**
When it's used Two hours to two days in advance of flooding.	**When it's used** Half an hour to one day in advance of flooding.	**When it's used** When flooding poses a significant risk to life or significant disruption to communities.	**When it's used** When a flood warning or severe flood warning is no longer in force.
Triggers • Forecasts that indicate that flooding from rivers may be possible. • Forecast intense rainfall for rivers that respond very rapidly. • Forecasts of high tides, surges or strong winds.	**Triggers** • High tides, surges coupled with strong winds. • Heavy rainfall forecast to cause flash flooding of rivers. • Forecast flooding from rivers.	**Triggers** • Actual flooding where the conditions pose a significant risk to life and/or widespread disruption to communities. • On-site observations from flooded locations. • A breach in defences or failure of a tidal surge barrier or dam that is likely to cause significant risk to life. • Discussions with partners.	**Triggers** • Risk of flooding has passed. • River or sea levels have dropped back below severe flood warning or flood warning levels and no further flooding is expected. • Professional judgment and discussions with partners agree that a severe flood warning status is no longer needed.

Impact on the ground
• Flooding of fields, recreation land and car parks.
• Flooding of minor roads.
• Flooding of farmland.
• Spray or wave overtopping on the coast.
	Impact on the ground
	• Flooding of homes and businesses.
	• Flooding of rail infrastructure.
	• Flooding to roads with major impacts.
	• Significant waves and spray on the coast.
	• Extensive flood plain inundation (including caravan parks or campsites).
	• Flooding of major tourist/recreational attractions.
		Impact on the ground
		• Deep and fast flowing water.
		• Debris in the water causing danger.
		• Potential or observed collapse of buildings and structures.
		• Communities isolated by flood waters.
		• Critical infrastructure for communities disabled.
		• Large number of evacuees.
		• Military support.
			Impact on the ground
			• No new impacts expected from flooding, however there may still be:
			  • Standing water following flooding;
			  • Flooded properties;
			  • Flooded or damaged infrastructure.

Advice to the public/media • Be prepared to act on your flood plan. • Prepare a flood kit of essential items. • Avoid walking, cycling or driving through flood water. • Farmers should consider moving livestock and equipment away from areas likely to flood. • Call **Floodline** on **0845 988 1188** for up-to-date flooding information. • Monitor local water levels on the Environment Agency website **www.environment-agency.gov.uk.**	**Advice to the public/media** • Protect yourself, your family and help others. • Move family, pets and valuables to a safe place. • Turn off gas, electricity and water supplies if safe to do so. • Put flood protection equipment in place. • If you are caught in a flash flood, get to higher ground. • Call **Floodline** on **0845 988 1188** for up-to-date information.	**Advice to the public/media** • Stay in a safe place with a means of escape. • Be ready should you need to evacuate from your home. • Co-operate with the emergency services. • Call 999 if you are in immediate danger. • Call **Floodline** on **0845 988 1188** for up-to-date flooding information.	**Advice to the public/media** • Be careful. Flood water may still be around for several days and could be contaminated. • If you've been flooded, ring your insurance company as soon as possible.
Advice to operational organisations • Check your flood response plans to see how your organisation needs to respond. • Speak to your local Environment Agency Flood Warning Duty Officer for the latest forecast information. • Dial into Flood Advisory Service teleconferences. • Advise the public to call **Floodline** on **0845 988 1188** for up-to-date flooding information. • Please report any flooding in your area to your local Environment Agency office.	**Advice to operational organisations** • Check flood response plans for actions required at this stage. • Speak to your local Environment Agency Flood Warning Duty Officer for the latest forecast information. • Advise the public to call **Floodline** on **0845 988 1188** for up-to-date flooding information. • Please report any flooding in your area to your local Environment Agency office.	**Advice to operational organisations** • Check flood response plans for actions required at this stage. • Advise the public to put their safety first and to be ready to evacuate should the authorities decide it's needed. • Develop clear messages for local communities and the public.	**Advice to operational organisations** • Recovery phase will have started. • Advise the public to call Floodline on **0845 988 1188** for advice on what to do if they have been affected by flooding.

Where to go for further information

We realise that organisations have a variety of responding roles, locations and needs across England and Wales, which is why our partners should work closely with the Environment Agency. Our local Flood Resilience Teams are available to provide further assistance on your specific response area. They can help your organisation link the flood codes to triggers and typical impacts seen on the ground at a local level. Our teams can help you define specific triggers appropriate in your area and ensure your emergency response plans incorporate suitable actions upon receipt of a Flood Alert, Flood Warning or Severe Flood Warning. In turn, we can provide you and your organisation with confidence to respond to a potential or actual flood event. To contact your local Environment Agency Flood Resilience Team, speak to our National Customer Contact Centre on 03708 506 506 and one of our advisors will put you through to your local team.

In addition to issuing flood warnings, we also provide the following services:

- **Three day flood risk forecast –** This shows, county by county, where there is risk of flooding over the next three days. The three-day forecast is updated at least every eight hours. For more information, please visit our website.
- **Rivers and sea levels –** We measure river and sea levels by collecting data from our monitoring stations along rivers and the coast. This information will show you how the rivers and sea are behaving at key locations. Rivers and sea levels are updated once a day on our website. During flooding, it will be updated more frequently if levels reach above a given threshold. For more information, please visit our website.

Weather and flood products provided by the Met Office and Flood Forecasting Centre can also be used by responders to ensure they are fully aware of the current and forecasted situations.

Would you like to find out more about us, or about your environment?

Then call us on

03708 506 506 (Mon-Fri 8-6)

Calls to 03 numbers cost the same as calls to standard geographic numbers (i.e. numbers beginning with 01 or 02).

email

enquiries@environment-agency.gov.uk

or visit our website

www.environment-agency.gov.uk

incident hotline 0800 80 70 60 (24hrs)
floodline 0845 988 1188

Environment first: Are you viewing this on screen? Please consider the environment and only print if absolutely necessary. If you are reading a paper copy, please don't forget to reuse and recycle if possible.

Appendix D

Plan Showing Utility Cut-Off Point

Appendix E

Map of Suggested Pedestrian Evacuation Route

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Project:
40 - 42 South Street, Worthing

Title:
Flood Evacuation Plan

Scale: (@ A1)

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Revision: P01

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