

AMBIENTAL

ENVIRONMENTAL ASSESSMENT

Flood Evacuation Plan

36-38 Surrey Street,
Littlehampton,
West Sussex,
BN17 5BH

Ambiental Environmental Assessment
Sussex Innovation Centre,
Science Park Square,
Brighton, BN1 9SB

Document Issue Record

Project: Flood Evacuation Plan

Prepared for: Peter Bedford

Reference: 5325 FEP

Site Location: 36-38 Surrey Street, Littlehampton, West Sussex, BN17 5BH

Proposed Development: The site has been subject to historic conversions/change of use without planning permission. The client is now seeking to provide a beauty salon/hairdressers at basement level, a residential use (House of Multiple Occupancy (HMO)/Assured Short Tenancy (AST)/Holiday Let) at ground floor and further residential uses at the first floor.

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1. Summary

- 1.1 Ambiental Environmental Assessment has been appointed by Peter Bedford to undertake a Flood Evacuation Plan (FEP) for the proposed development at 36-38 Surrey Street, Littlehampton, West Sussex, BN17 5BH.
- 1.2 The site has been subject to historic conversions/change of use without planning permission. The client is now seeking to provide a beauty salon/hairdressers at basement level, a residential use (House of Multiple Occupancy (HMO)/Assured Short Tenancy (AST)/Holiday Let) at ground floor and further residential uses at the first floor. This FEP primarily focuses towards the proposed residential uses as these are of a higher vulnerability than the proposed commercial unit.
- 1.3 With reference to the Environment Agency (EA) Flood Map for Planning, the proposed development is located within Flood Zone 3. The proposed development is considered 'More Vulnerable' under the National Planning Policy Framework (NPPF).
- 1.4 The 1:200 year present day (2017) undefended flood level for the site is 3.74mAOD. Based on the latest guidance, a Higher Central (HC) scenario would represent a 1.2m increase in sea levels; an Upper End (UE) scenario would represent a 1.6m increase in sea levels; and a High++ (H++) scenario would represent a 2.19m increase in sea levels. As such, the 1:200 year HC (2125) undefended flood level for the site is 5.34mAOD, the 1:200 year UC (2125) undefended flood level is 5.34mAOD and the 1:200 year H++ (2125) undefended flood level is 5.93mAOD.
- 1.5 Based on a topographic survey undertaken in February 2020, the lowest Finished Floor Level (FFL) at the ground floor is 3.78mAOD. As such, the ground floor could experience flood depths of up to 2.15m in the 1:200 year H++ (2125) event. However, the survey also indicates that the lowest FFL at the first floor is 6.06mAOD in the lower level and 6.70mAOD in the upper level. As such, the first floor is a minimum of 0.13m above the 1:200 year H++ (2125) flood level.
- 1.6 The client has confirmed that internal access will be maintained from the ground floor unit up to the first floor. As such, emergency safe refuge could be sought at the first floor in a worst-case event where prior evacuation is not possible.
- 1.7 It is recommended that the site owner(s), occupants and management staff (of the basement commercial unit) sign up to the Flood Alert/Warning System, by doing so prior evacuation can be sought for standard tidal flooding (not breach).
- 1.8 Flood evacuation procedures will be the responsibility of the site owner(s)/occupants to ensure that the site is registered to the EA Flood Warning/Alert Service and that this service is available to all site users.

2. Development Description and Site Area

Proposed Development and Location

- 2.1 This report presents a comprehensive Flood Evacuation Plan which includes information for the developers, owners, occupants and site users concerning flood warning and evacuation.
- 2.2 This Flood Warning and Evacuation Plan has been written for the proposed residential units at 36-38 Surrey Street, Littlehampton, West Sussex, BN17 5BH (Figures 1 and 2).

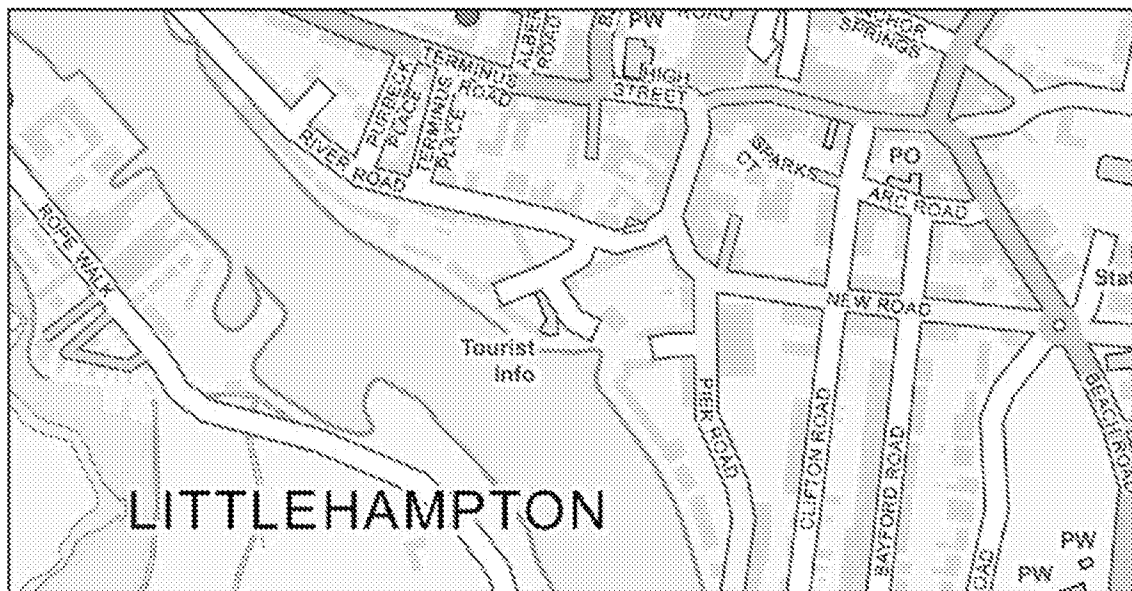


Figure 1 Location Map, Identifying the location of the proposed development (Source: OJ)



Figure 2 Aerial Map, identifying the location of the proposed development (Source: Google Earth)

- 2.3 The Flood Warning and Evacuation Plan will detail what different action should be taken during various tidal flood events (i.e overtopping or breach) and how escape, refuge or rescue should be sought.
- 2.4 It is the responsibility of the site owner(s) to put this plan in place and make all occupants and site users aware of the procedures.

Analysis of Site in Relation to Tidal Flooding

- 2.5 The EA Flood Map for Planning (Figure 3) demonstrates that the proposed development lies within Flood Zone 3 with a high probability of greater than 1 in 200 (0.5%) of flooding from seas or tidal estuaries in any year.

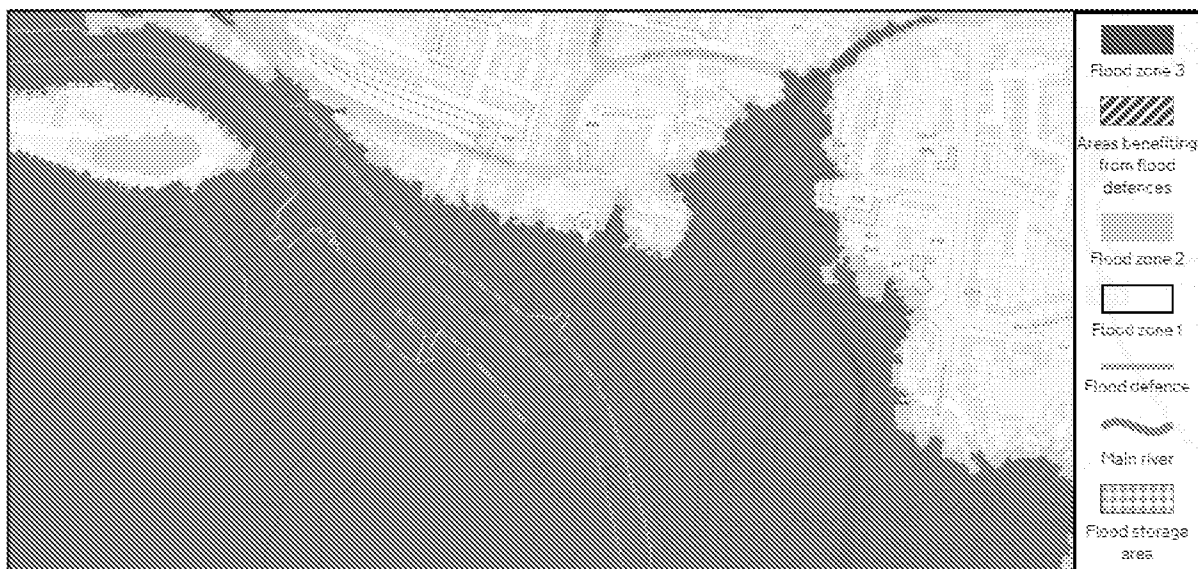


Figure 3 EA Flood Map for Planning (Source: EA)

- 2.6 While the site is not located within an area benefitting from the presence of flood defences according to the EA Flood Map for Planning, the EA have indicated that there are flood defences within proximity of the site in the form of a wall, with an estimated standard of protection of 1:300 year years (0.3% AEP).
- 2.7 However, in the absence of defence breach modelling in this area, the EA advise that development should be designed to be safe from flooding in the undefended event inclusive of the impacts of climate change.
- 2.8 The 1:200 year present day (2017) undefended flood level for the site is 3.74mAOD. Based on the latest guidance, a Higher Central (HC) scenario would represent a 1.20m increase in sea levels; an Upper End (UE) scenario would represent a 1.60m increase in sea levels; and a High++ (H++) scenario would represent a 2.19m increase in sea levels. As such, the 1:200 year HC (2125) undefended flood level for the site is 4.94mAOD, the 1:200 year UE (2125) undefended flood level is 5.34mAOD and the 1:200 year H++ (2125) undefended flood level is 5.93mAOD.
- 2.9 Based on a topographic survey undertaken in February 2020, the lowest Finished Floor Level (FFL) at the ground floor is 3.78mAOD. **As such, the ground floor could experience flood depths of up to 2.15m in the 1:200 year H++ (2125) event.**
- 2.10 As such, the risk of flooding from tidal sources over the lifetime of the development could be considered **high**.
- 2.11 However, the survey also indicates that the lowest FFL at the first floor is 6.06mAOD in the lower level and 6.70mAOD in the upper level. As such, the first floor is a minimum of 0.13m above the 1:200 year H++ (2125) flood level.

3. Analysis to Determine if Safe Access and Egress is Available

- 3.1 In order for an access/egress route to be acceptable under the NPPF, the combination of flood depths, velocities and debris (hazard rating) must be analysed.
- 3.2 Given that the tidal cycle is well understood and given that the site is within an EA Flood Warning area, it is likely that sufficient warning would be provided to allow site users to evacuate the site to a place of safe refuge in Flood Zone 1 before flood waters reach the site.
- 3.3 However, in a meeting with Ambiental in February 2020, the EA requested that the development is designed to be safe for the 1:200 year undefended event (with an allowance for climate change), whereby the undefended event is used in the absence of breach modelling. As such, the undefended event is to be discussed to ascertain whether safe access/egress could be achieved.

Proposed Evacuation Route

- 3.4 A proposed flood evacuation route is provided in Figures 4 and 5 below.
- 3.5 It is recommended that upon receipt of a Flood Warning, site users should exit the properties onto Surrey Street and travel north towards high street. They should bear left onto High Street and then turn right (north) onto Arundel Road. They should then continue north on Arundel Road for approximately 150m, at which point they should be located in Flood Zone 1, outside the undefended 1:200 year (2115) modelled flood extent. A number of properties in the area could provide a place of safe refuge, such as St James the Great Church on Arundel Road, or River Beach Primary School north of Franciscan Way. The proposed evacuation route and potential places of safe refuge are demonstrated in Figures 4 & 5 below.

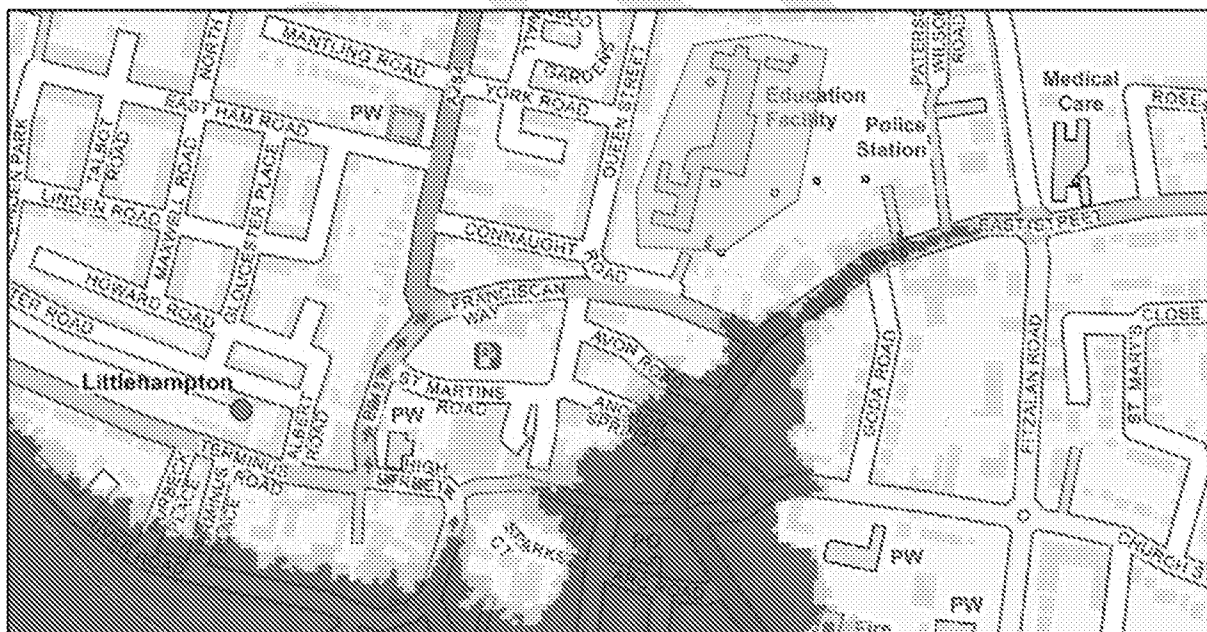


Figure 4 Proposed evacuation route (green arrows) and potential places of safe refuge -- shown as green polygons
(Source: EA)

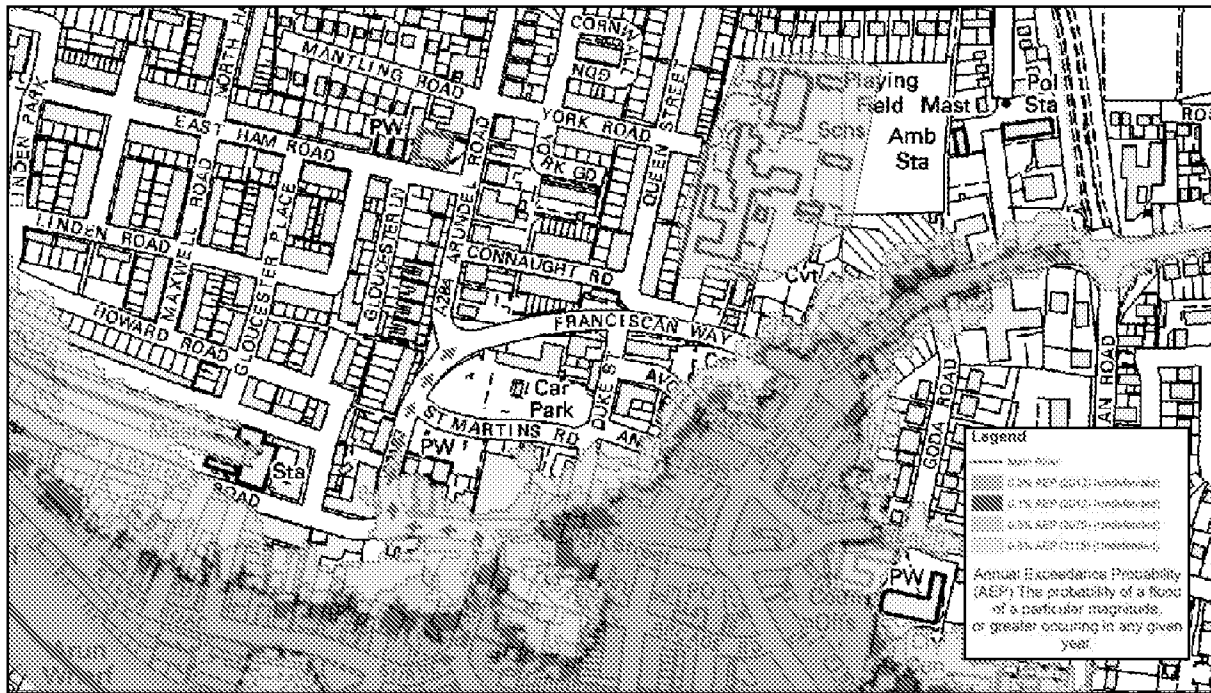


Figure 5 Proposed evacuation route (green arrows) and potential places of safe refuge -- shown as green polygons
(Source: EA)

3.6 The proposed evacuation route and places of safe refuge should be agreed with the Local Planning Authority Emergency Planning Team and should be communicated to all site users.

3.7 Section 9.4 of the Arun SFRA (2016) states that:

"Arun District Council have drafted a Part 2 Multi-Agency Flood Plan for Bognor Regis, Littlehampton, Arundel and Pagham (MAFP). The Part 2 MAFP provides additional detail for the management of a flood incident for Bognor Regis, Littlehampton, Arundel and Pagham. The plan is owned by Arun District Council Emergency Planning Services and should be reviewed by the council at least every three years.

The aim of the MAFP is to set out the procedures for the multi-agency response and management to a flooding incident, as well as to provide site specific information to assist the implementation of evacuation if required. The plan applies for flooding from pluvial, sewer, groundwater and coastal sources. It aims to facilitate effective response to the threat of flooding by initiating a multi-agency response at the earliest possible stage.

The multi-agency response is divided into two levels: 'standby' and 'full activation'. The MAFP sets out the roles and responsibilities of Arun District Council, Sussex Police, West Sussex County Council and the Environment Agency under each of these levels."

3.8 The MAFP is unavailable for review at the time of writing. However, the SFRA continues to state that the MAFP sets out the Littlehampton Swimming and Sports Centre as an allocated emergency rest centre to provide temporary accommodation to those displaced in an extreme event. This rest centre is located in Flood Zone 3. However, the rest centre could be utilised by site users seeking emergency rest (once the EA lift the Flood Warning and it is deemed safe to do so), if the property is flooded. This rest centre is located approximately 1.5km southeast of the development site, on Sea Road. In the first instance, site users should seek to follow the proposed evacuation route to the proposed places of safe refuge in Flood Zone 1/outside the 1:200 year (2115) undefended flood extent, and then seek emergency rest at the Littlehampton Swimming and Sports Centre once Flood Warnings have been lifted, if alternative accommodation cannot be sought.

- 3.9 If the ground floor use is let out as a holiday rental unit, the site owner has advised that information of flooding is to be given on all booking websites.
- 3.10 If the site owner/management receives an EA Flood Warning when the site is not currently being let out/in use, it is recommended that the apartments are closed and remain so until the Flood Warning is lifted. The site owner/management is responsible for informing all upcoming site users/bookings that the apartments are closed for the foreseeable future (until the Flood Warning is lifted). This may result in bookings being cancelled/suspended pending further details from the EA.
- 3.11 Given that the tidal cycle is well understood and given that the site is within an EA Flood Warning area, it is likely that sufficient warning would be provided to allow site users to evacuate the site to a place of safe refuge in Flood Zone 1 before flood waters reach the site.
- 3.12 However, as discussed above, the EA require the undefended scenario to be considered in the absence of detailed breach modelling.
- 3.13 Based on the latest guidance the 1:200 year H++ (2125) undefended flood level is 5.93mAOD.
- 3.14 Based on a topographic survey undertaken in February 2020, the lowest Finished Floor Level (FFL) at the ground floor is 3.78mAOD. **As such, the ground floor could experience flood depths of up to 2.15m in the 1:200 year H++ (2125) event.**
- 3.15 A review of 2m LiDAR indicates that the proposed evacuation route could experience depths of up to 2.75m just outside the site. As such, safe access/egress would not be possible from the site in a 1:200 year H++ (2125) undefended/breach event. As such, if flooding has already started to occur along the proposed evacuation route, alternative measures should be sought.

Safe Refuge on Site

- 3.16 It is acknowledged that the nearby flood defences could fail/breach without warning and this may hinder prior evacuation of the site. In the event of defence breach, site users should utilise the internal stairwells to seek refuge the first floor on site. The topographic survey provided indicates that the lowest FFL at the first floor is 6.06mAOD in the lower level and 6.70mAOD in the upper level. As such, the first floor is a minimum of 0.13m above the 1:200 year H++ (2125) flood level.
- 3.17 The client has confirmed that internal access will be maintained from the ground floor unit up to the first floor. As such, emergency safe refuge could be sought at the first floor in a worst-case event where prior evacuation is not possible.

Flood Warning Procedures and Hazard Prevention

- 3.18 This section contains information on the types of flood warning available to site owners and staff, as well as suggested actions in the event of these warnings being enacted.
- 3.19 The EA operates a 24-hour telephone service on **0345 988 1188** that provides frequently updated flood warnings/alerts and associated floodplain information.
- 3.20 The proposed development site is located within an EA Flood Warning Service Area. As such, the site owner(s)/occupant(s) should sign up to this service and make this service available for all site users.
- 3.21 Further information can be found on www.environment-agency.gov.uk/floodline. Floodline Warnings Direct is a free service operated by the EA that provides flood warnings direct to occupants by telephone, mobile phone, fax or pager.

- 3.22 If the ground floor use is let out as a holiday rental unit, the site owner has advised that information of flooding is to be given on all booking websites.
- 3.23 If the site owner/management receives an EA Flood Warning when the site is not currently being let out/in use, it is recommended that the apartments are closed and remain so until the Flood Warning is lifted. The site owner/management are responsible for informing all upcoming site users/bookings that the apartments are closed for the foreseeable future (until the Flood Warning is lifted). This may result in bookings being cancelled/suspended pending further details from the EA.

Evacuation Procedures

- 3.24 It is the responsibility of the site owner(s)/occupants to keep the evacuation routes and areas of safe refuge known to all site users.
- 3.25 Upon receipt of a Flood Warning, it is the responsibility of the site owners/occupants to ensure all site users evacuate the site to the designated place of safe refuge discussed in Figures 4 and 5.
- 3.26 If this is not possible due to depths exceeding 25cm along the proposed evacuation route, safe refuge should be sought at the first floor of the property via the internal stairwells.
- 3.27 It has been demonstrated that the FFLs of the first floor are set above the 1:200 year H++ (2125) undefended flood level and as such, emergency refuge could be sought on site if flood waters have reached 25cm.
- 3.28 Once a Flood Warning has been issued and the decision has been made to evacuate the site, site users should be advised not to return to the site until the site is deemed to be safe for return by the Emergency Services/EA. If flood waters have receded the site can be accessed provided it is safe to do so.
- 3.29 Site owners will be responsible for informing future occupants and site users of the risk posed from flooding. If it is proposed to have holiday let units at the ground floor, the proposed evacuation route and places of safe refuge should be communicated to all site users upon booking of the property.
- 3.30 The flood warning and evacuation plan, as well as details of the evacuation route should be included within the deeds to the property, any rental agreements and should be provided to all site occupants.
- 3.31 The Flood Evacuation Plan should be reviewed annually, in light of the most recent and best available data.
- 3.32 Obstacles below the water can present a significant hazard that may not be immediately obvious – collapsed manhole covers, debris, vegetation etc. can trap a person or cause serious injury when submerged. Additionally, shallow fast moving water can knock a physically fit adult over.
- 3.33 Upon receipt of a Flood Warning, it is the responsibility of the site owners/staff to ensure all current site users evacuate the site to the designated place of safe refuge. If this is not possible due to depths exceeding 25cm along the proposed evacuation route, safe refuge should be sought at the highest floors on site, where possible.
- 3.34 It is the site owners responsibility to either;
- Liaise with the Emergency Services in relation to the decision to evacuate all users of the site,
- Or*
- To agree to make an onsite occupant (if not the owner) the point of contact between the site and the Emergency Services and Planners should they be off site.

- 3.35 In worst-case scenario events, the Emergency Services will become the lead agencies in respect to the flood incident. Emergency Services will lead on the decision to evacuate, especially, if life is at risk and any subsequent evacuation of the development.
- 3.36 If any site users cannot or will not evacuate, the Emergency Services are required to be informed immediately.
- 3.37 Site owners/occupants should continue to liaise with the Emergency Services and Emergency Planners throughout the evacuation procedure and will report to them once the evacuation has been successful so as to avoid unnecessary strain on the resources of the Emergency Services.

Three day flood risk forecast	What it means • Be aware. Think ahead. Keep any eye on the weather situation When it's used • Daily forecasts of flood risk on the EA website www.environment-agency.gov.uk These are updated more frequently for higher flood risk situations Triggers • Information updated daily on the Environment Agency website • The information includes the current and forecast situation and how this is likely to affect each county in England and Wales over the next three days Impacts on the ground Maps will show one of four levels of risk for each county: • Green = no risk of flooding • Yellow = low risk of flooding • Amber = medium risk of flooding • Red = high risk of flooding Advice to the public /media • Check forecast on the EA website • Remain aware of the impending weather conditions for your area Advice to operations organisations • The three day forecast is the public facing version of the Flood Guidance Statement that Category 1 and 2 responders receive • Advice for organisations varies depending on the level of flood risk and is provided on the Flood Guidance Statement issued by the Flood Forecasting Centre.
 FLOOD ALERT	What it means • Flooding is possible • Be prepared When it's used • Two hours to two days in advance of flooding Triggers • Forecasts that indicate flooding from rivers may be likely. • Forecast intense rainfall for rivers that respond very rapidly. • Forecasts of high tides, surges or high winds. 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 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 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 • Please report any flooding in your area to your local Environment Agency office
	What it means • Flooding is expected • Immediate action required When it's used • Half an hour to one day in advance of flooding Triggers • High tides, surges coupled with strong winds • Heavy rainfall forecast to cause flash flooding of rivers • Forecast flooding from rivers Impact on the ground • Flooding of homes and businesses • Flooding of rail infrastructure • Flooding of roads with major impacts • Significant waves and spray on the coast • Extensive flood plain inundations (including caravan parks or campsites) • Flooding of major tourist /recreational attractions 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 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 • Please report any flooding in your area to your local Environment Agency office

	What it means • Severe flooding • Danger to life When it's used • When flooding poses a significant risk to life or significant disruption to communities 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 barrier that is likely to cause significant risk to life • Discussions with partners 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 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 98801188 for up to date flooding information 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 its needed • Develop clear messages for local communities and the public
Warning no longer in force	What it means • No further is currently expected for your area. When it's used • When a flood warning or severe flood warning is no longer in force Triggers • Risk of flooding has passed • River or sea have dropped back below severe flood warning for flood warning levels • 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 • No new impacts expected from flooding, however there still may be: • Standing water following flooding • Flooded properties • Flooding or damaged infrastructure 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 - 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
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Safe Refuge Procedures

- 3.38 Situations may arise whereby prior evacuation may not be viable due to depths along the proposed evacuation route exceeding 25cm (such as defence breach).
- 3.39 It has been demonstrated that the FFLs of the first floor are set above the 1:200 year H++ (2125) undefended flood level and as such, emergency refuge could be sought on site if flood waters have reached 25cm.
- 3.40 It is the site owner's/senior management's continued responsibility to liaise with the Emergency Services with regards to the best course of action.

4. Preparation Prior to Flood Event

4.1 There are many ways in which a site owner/occupant may prepare for the potential of a flood event. The Environment Agency recommends that you create a kit of essential items and keep it to hand;

- Important documents - such as passport and insurance certificates. Some documents are expensive to replace. Having these in your kit will keep them safe and to hand.
- Torch - in case it floods at night and your power is affected.
- Radio - a wind-up or battery radio will help you monitor local news and weather broadcasts for the latest flooding situation.
- Batteries - have spare batteries available to power your torch or radio.
- Blankets or warm clothing - it may be cold and you could be without power for some time.
- First aid kit - keep a first aid kit to hand in case of minor injuries. Put any prescription medication in your kit so that you have easy access to it.
- Mobile phone - keep a fully charged mobile with you so that you can contact people in an emergency or call for help. If your phone has Internet access you can use it to check on the latest flood situation.
- Waterproof clothing - keep wellies and rubber gloves available should you need to enter the flood water.

4.2 In a flood, you may not have time to find these essential items so it's important to prepare in advance. Completing an individual flood plan – in light of the information in this plan - will help you decide what practical actions to take before and during a flood, which will help reduce the damage flooding could cause.

Advice and Information for Site Owner

4.3 Site users should be adequately informed of the Flood Evacuation Plan. This should include:

- Details of procedure provided on website and booking sites;
- Information concerning the warning and evacuation procedure;
- Clear signage of the evacuation route across the building;
- A list of useful telephone numbers and websites;
- A copy of the evacuation route;
- Application forms to register with the EA's Floodline Warnings Direct Service (if the property has been removed from this automatic service).

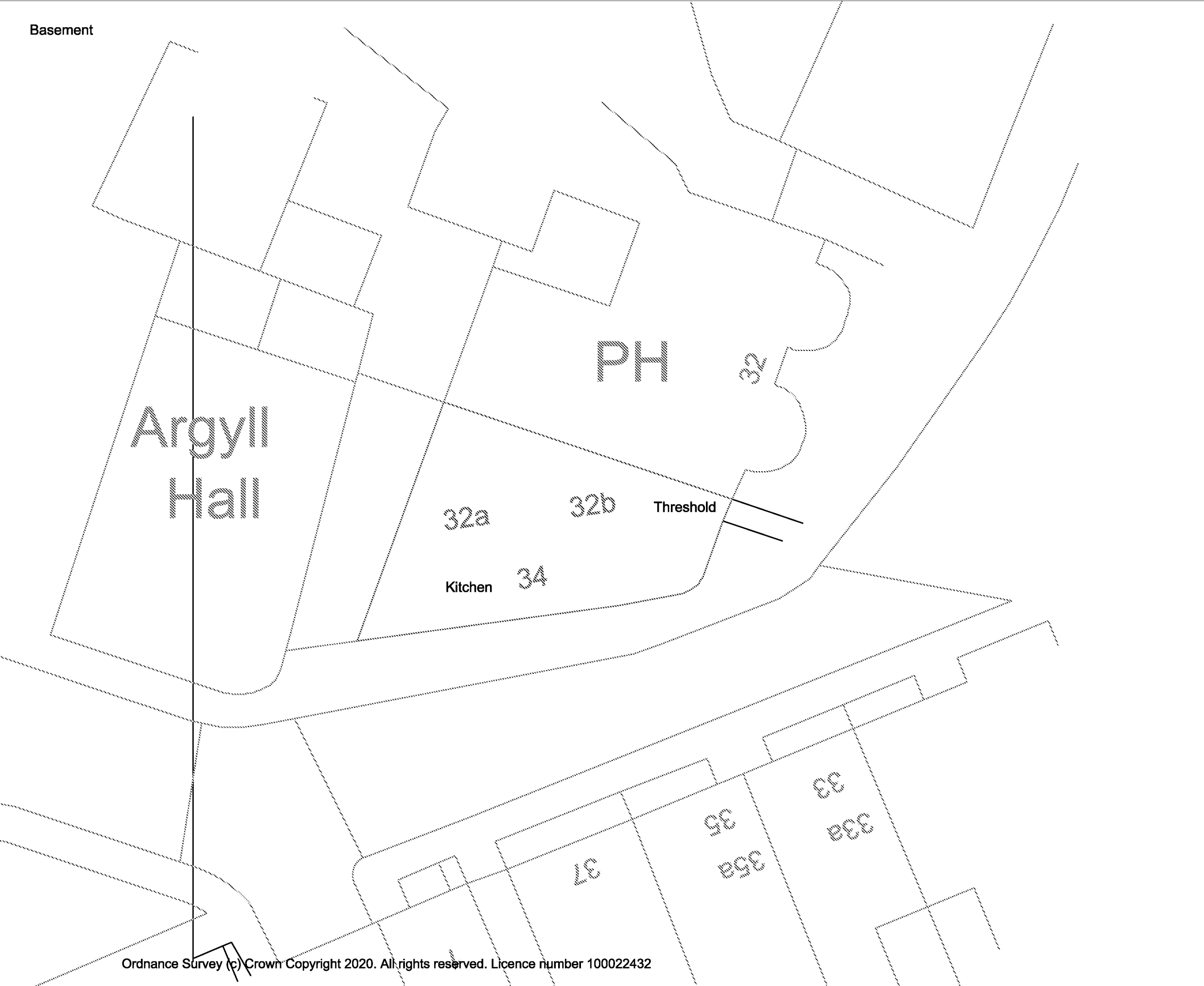
4.4 The developer should aim to co-ordinate any Flood Evacuation Plans with neighbouring and nearby sites to minimise confusion.

4.5 Copies of the completed Flood Evacuation Plan should be sent directly to the Chief Constable and the Chief Fire Officer as well as the local planning authority.

5. Conclusion

- 5.1 Ambiental Environmental Assessment has been appointed by Peter Bedford to undertake a Flood Evacuation Plan (FEP) for the proposed development at 36-38 Surrey Street, Littlehampton, West Sussex, BN17 5BH.
- 5.2 The site has been subject to historic conversions/change of use without planning permission. The client is now seeking to provide a beauty salon/hairdressers at basement level, a residential use (House of Multiple Occupancy (HMO)/Assured Short Tenancy (AST)/Holiday Let) at ground floor and further residential uses at the first floor. This FEP primarily focuses towards the proposed residential uses as these are of a higher vulnerability than the proposed commercial unit.
- 5.3 With reference to the Environment Agency (EA) Flood Map for Planning, the proposed development is located within Flood Zone 3. The proposed development is considered 'More Vulnerable' under the National Planning Policy Framework (NPPF).
- 5.4 The 1:200 year present day (2017) undefended flood level for the site is 3.74mAOD. Based on the latest guidance, a Higher Central (HC) scenario would represent a 1.2m increase in sea levels; an Upper End (UE) scenario would represent a 1.6m increase in sea levels; and a High++ (H++) scenario would represent a 2.19m increase in sea levels. As such, the 1:200 year HC (2125) undefended flood level for the site is 5.34mAOD, the 1:200 year UC (2125) undefended flood level is 5.34mAOD and the 1:200 year H++ (2125) undefended flood level is 5.93mAOD.
- 5.5 Based on a topographic survey undertaken in February 2020, the lowest Finished Floor Level (FFL) at the ground floor is 3.78mAOD. As such, the ground floor could experience flood depths of up to 2.15m in the 1:200 year H++ (2125) event. However, the survey also indicates that the lowest FFL at the first floor is 6.06mAOD in the lower level and 6.70mAOD in the upper level. As such, the first floor is a minimum of 0.13m above the 1:200 year H++ (2125) flood level.
- 5.6 The client has confirmed that internal access will be maintained from the ground floor unit up to the first floor. As such, emergency safe refuge could be sought at the first floor in a worst-case event where prior evacuation is not possible.
- 5.7 It is recommended that the site owner(s), occupants and management staff (of the basement commercial unit) sign up to the Flood Alert/Warning System, by doing so prior evacuation can be sought for standard tidal flooding (not breach).
- 5.8 Flood evacuation procedures will be the responsibility of the site owner(s)/occupants to ensure that the site is registered to the EA Flood Warning/Alert Service and that this service is available to all site users.

Appendix I - Site Plans



Levels to OS Datum

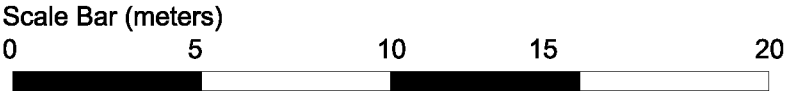
Basement Threshold: 1.80
Basement: 1.74
Basement kitchen: 1.66

Ground Floor Threshold (salon): 3.84
Ground Floor Level (salon): 3.83
Ground Floor Threshold (Flat): 3.84
Ground Floor Level (Flat): 3.83
Ground Floor Threshold (Rear Access): 3.81
Ground Floor Level (At rear access): 3.78
Ground Floor Level (Rear Apartment): 3.83

First Floor Level (lower level): 6.06
First Floor Level (upper level): 6.70
First Floor Threshold (to balcony): 6.85
Balcony Level: 6.76

Notes:

Please note that partition lines are indicative only.



36-38 Surrey Street
Littlehampton
West Sussex
BN17 5BH

Drawing Title
Finish Floor Level Survey to OS Bench Mark - Basement Level

Scale
1:200 @ A3

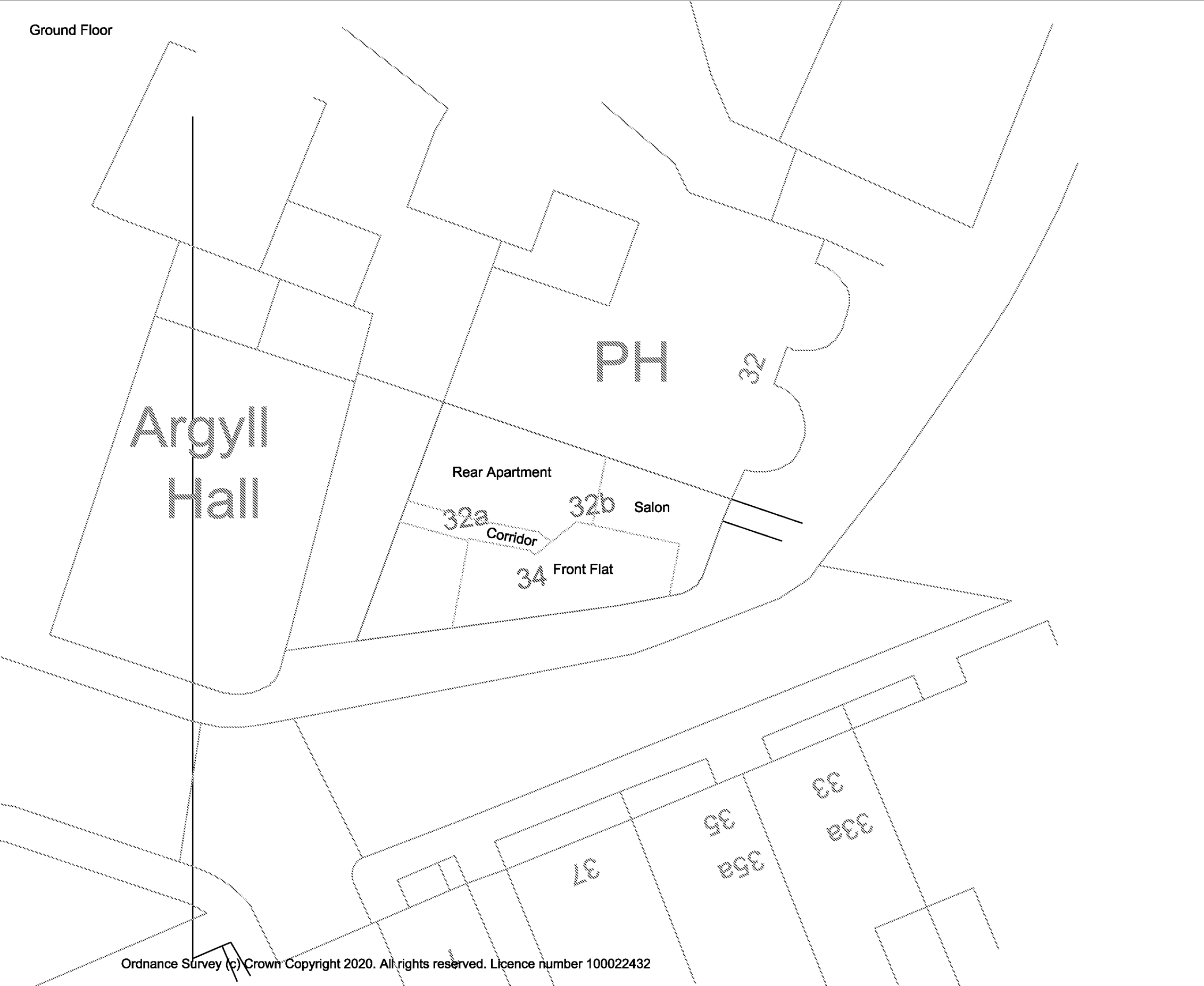
Date
18/02/20

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Tel: 01273 331049
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Simon@SeSurveying.co.uk



Levels to OS Datum

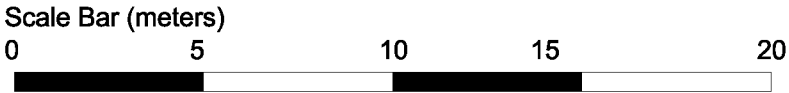
Basement Threshold: 1.80
Basement: 1.74
Basement kitchen: 1.66

Ground Floor Threshold (salon): 3.84
Ground Floor Level (salon): 3.83
Ground Floor Threshold (Flat): 3.84
Ground Floor Level (Flat): 3.83
Ground Floor Threshold (Rear Access): 3.81
Ground Floor Level (At rear access): 3.78
Ground Floor Level (Rear Apartment): 3.83

First Floor Level (lower level): 6.06
First Floor Level (upper level): 6.70
First Floor Threshold (to balcony): 6.85
Balcony Level: 6.76

Notes:

Please note that partition lines are indicative only.



36-38 Surrey Street
Littlehampton
West Sussex
BN17 5BH

Drawing Title
Finish Floor Level Survey to OS Bench Mark - Ground Floor

Scale
1:200 @ A3

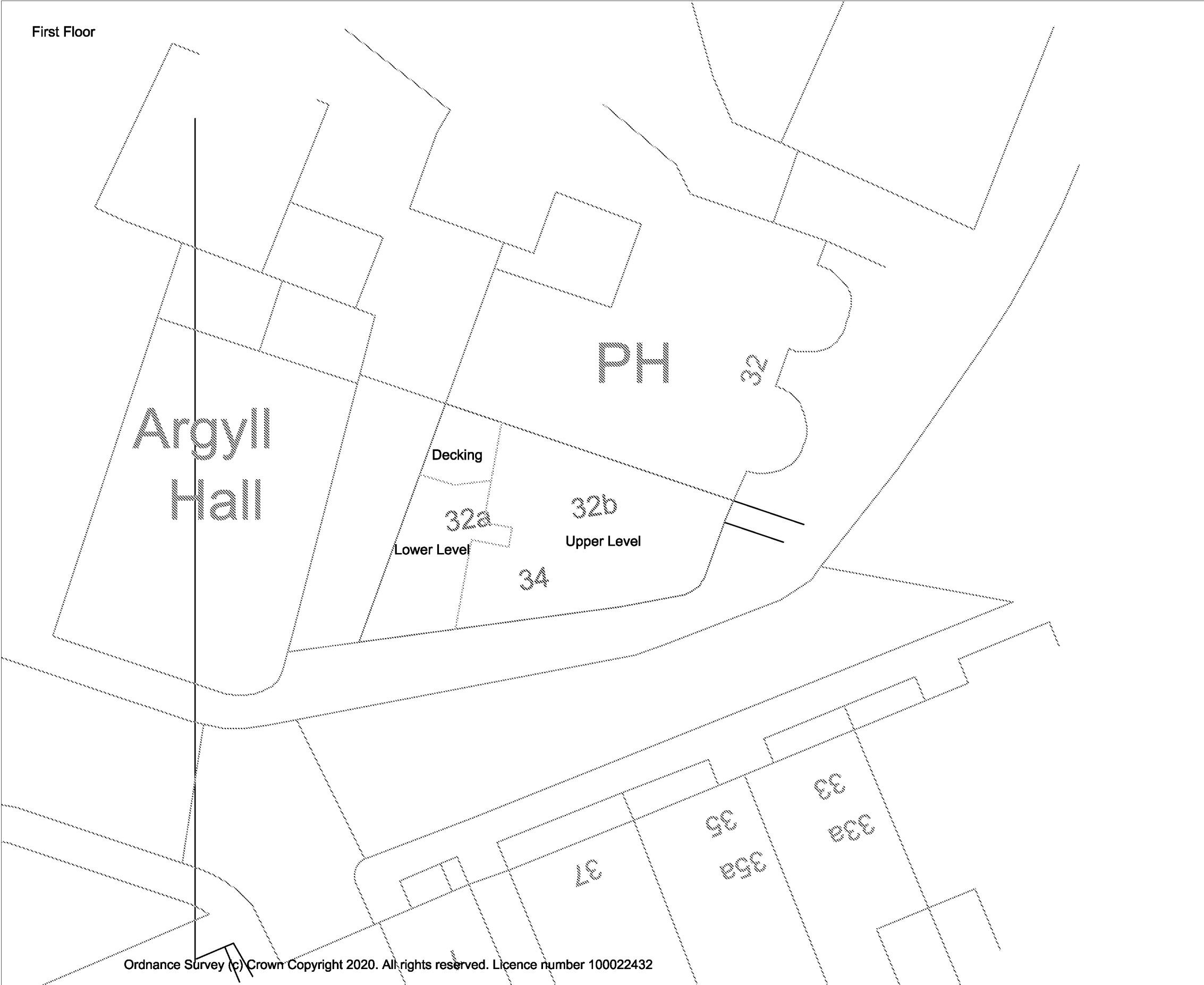
Date
18/02/20

Drawn by
AR



The Studio
70 Ladies Mile Road
Brighton
BN1 8TD

Tel: 01273 331049
Mob: 07817 455729
Simon@SeSurveying.co.uk



Levels to OS Datum

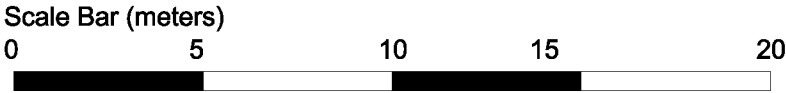
Basement Threshold: 1.80
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Ground Floor Threshold (salon): 3.84
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36-38 Surrey Street
Littlehampton
West Sussex
BN17 5BH

Drawing Title

Finish Floor Level Survey to OS Bench Mark - First Floor

Scale

1:200 @ A3

Date

18/02/20

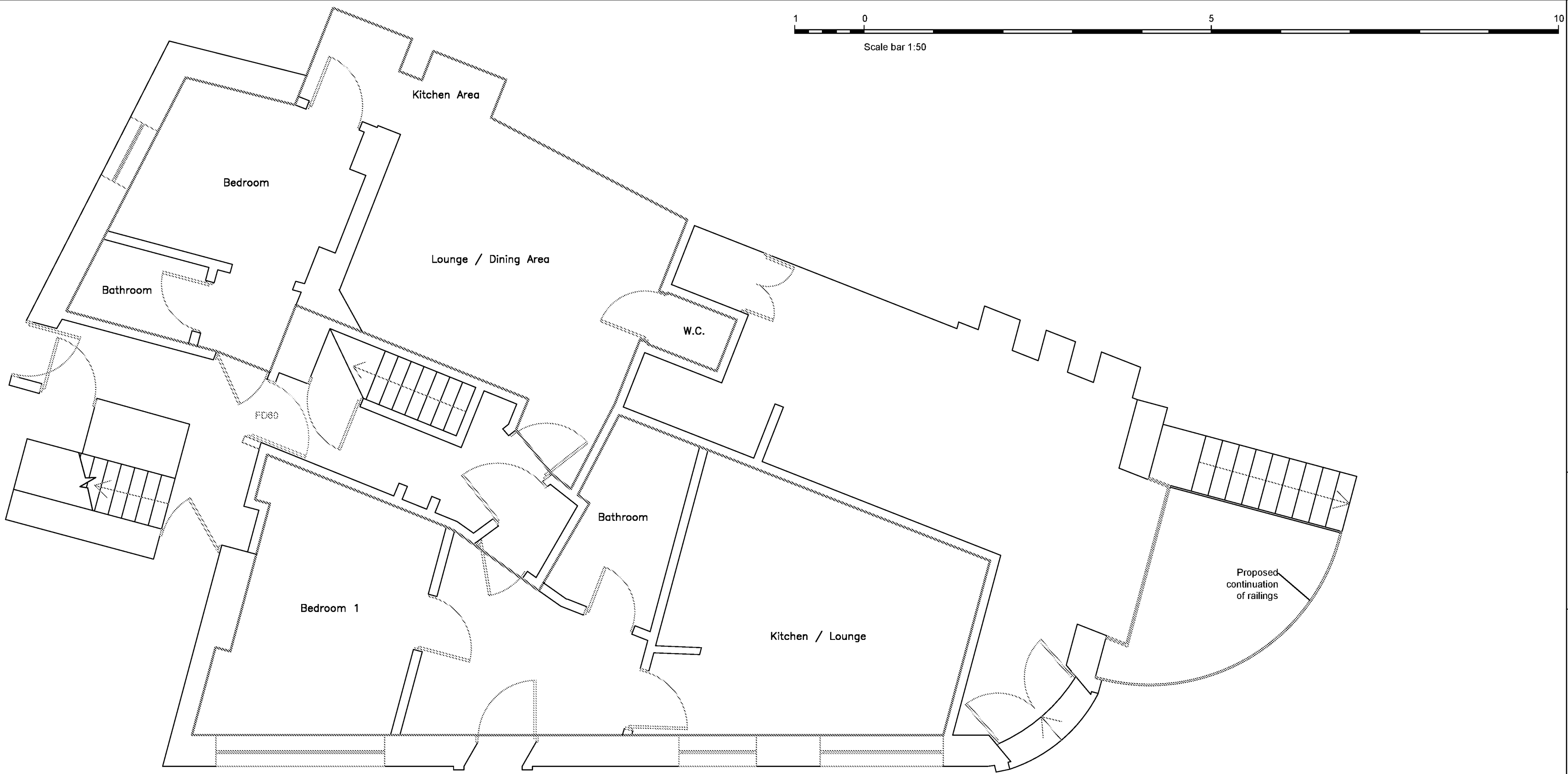
Drawn by

AR



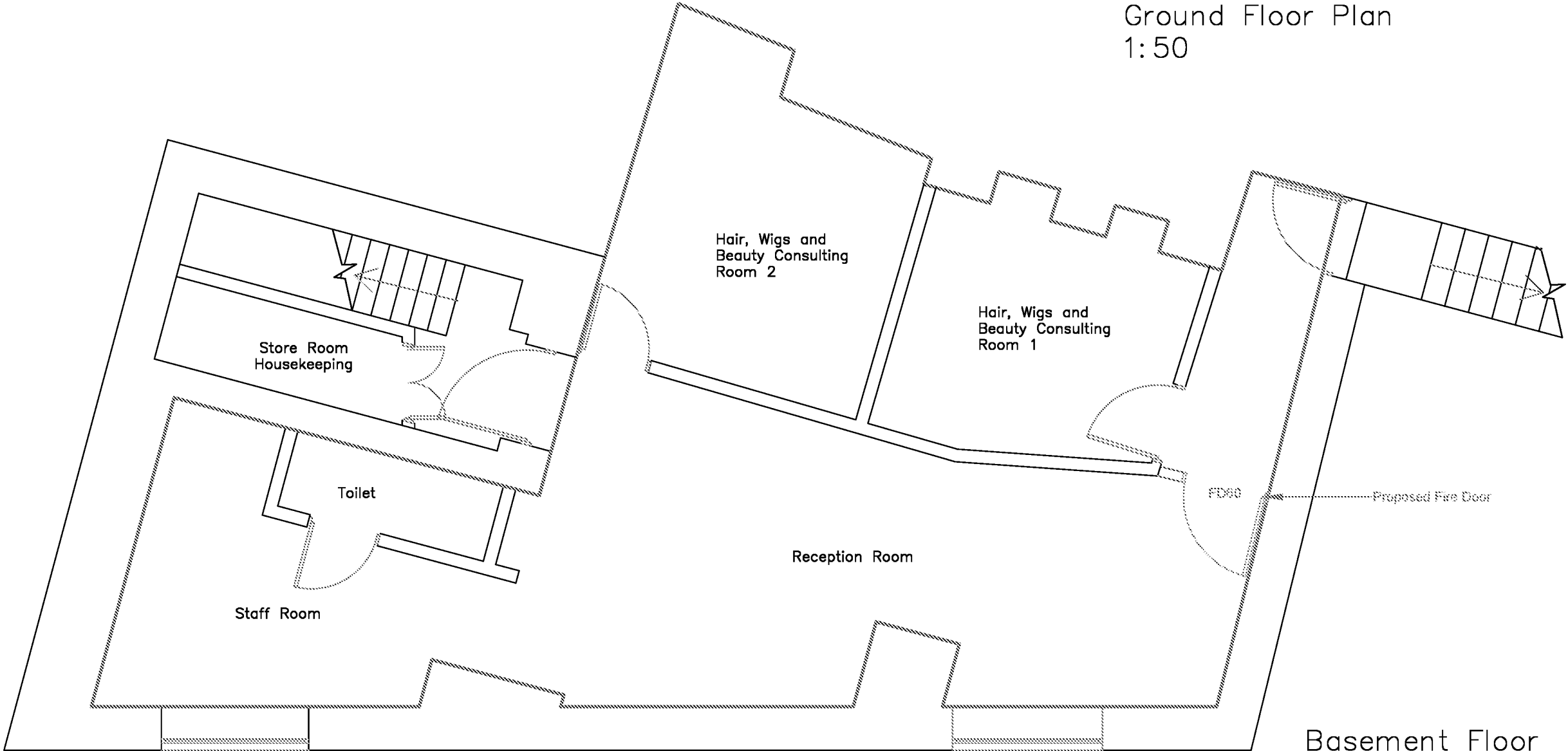
The Studio
70 Ladies Mile Road
Brighton
BN1 8TD

Tel: 01273 331049
Mob: 07817 455729
Simon@SeSurveying.co.uk



Proposed Floor Plans

Ground Floor Plan
1: 50



Basement Floor Plan
1: 50

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Chartered Surveyors • Architectural Design

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www.fuller-associates.co.uk

Job Title
36-38 Surrey Street, Littlehampton

Client
Mr Drake

Drawing Name
Floor Plans - Proposed

Drawing Status
Planning

Drawn by KW Date March 20
Checked by Date

Drawing Scale
1:50 at A2

Drawing No Status Revision
203091/ 01 A

Appendix II - EA Data

Thea Powell
Ambiental
Science Park Square
Brighton
BN1 9SB

Our ref: SSD105294
Your ref: 9992
Date: 13/11/2018

Dear Thea Powell,

Enquiry Regarding Product 4 for Flood Risk Assessment for St John's Church Hall
36-38 Surrey Street, Littlehampton, BN17 5BH

Thank you for your enquiry which was received on 25 October 2018.

We respond to requests under the Freedom of Information Act 2000 and Environmental Information Regulations 2004. The information is attached.

The information on Flood Zones in the area relating to this address is as follows:

The site is in an area located within Flood Zone 3 as shown on our Flood Map for Planning (Rivers and Sea).

Note - This information relates to the area that the above named property is in and is not specific to the property itself as it is influenced by factors such as the height of door steps, air bricks or the height of surrounding walls. We do not have access to this information and is not currently used in our flood modelling.

Flood Zone definitions can be found at www.gov.uk/guidance/flood-risk-and-coastal-change#Table-1-Flood-Zones

Flood Defences

There are flood defences in the form of a wall. The estimated standard of protection is 1 in 300 years (0.3% AEP). The asset is maintained privately.

Model Information

The model used was the Arun To Adur Coastal Modelling which was completed by JBA Consulting in 2012. A model update was run in 2017 to take into account the new flood defences.

Flood History

We hold no record of previous flooding events affecting this site.

Please note our records are not comprehensive and may not include all events. I recommend contacting the Lead Local Flood Authority, **West Sussex County Council** or the Local Authority, **Arun District Council** for a more comprehensive flood history check.

FRA advisory text

Name	Product 4
Description	Detailed Flood Risk Assessment Map for St John's Church Hall 36-38 Surrey Street, Littlehampton, BN17 5BH.
Licence	<u>Open Government Licence</u>
Information Warnings	None
Information Warning - OS background mapping	<i>The mapping of features provided as a background in this product is © Ordnance Survey. It is provided to give context to this product. The Open Government Licence does not apply to this background mapping. You are granted a non-exclusive, royalty free, revocable licence solely to view the Licensed Data for non-commercial purposes for the period during which the Environment Agency makes it available. You are not permitted to copy, sub-license, distribute, sell or otherwise make available the Licensed Data to third parties in any form. Third party rights to enforce the terms of this licence shall be reserved to OS.</i>
Attribution	Contains Environment Agency information © Environment Agency and/or database rights. Contains Ordnance Survey data © Crown copyright 2018 Ordnance Survey 100024198.

Data Available Online

Many of our flood datasets are available online:

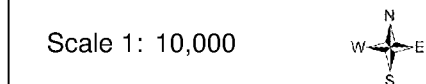
- [Flood Map For Planning \(Flood Zone 2, Flood Zone 3 ,Flood Storage Areas, Flood Defences, Areas Benefiting from Defences\)](#)
- [Risk of Flooding from Rivers and Sea](#)
- [Historic Flood Map](#)
- [Current Flood Warnings](#)

Please get in touch if you have any further queries or contact us within two months if you'd like us to review the information we have sent.

Yours sincerely,

Eleonora Pilla
FCRM Officer - PSO West Sussex

Flood Map for Planning (Rivers and Sea) created 13/11/2018



- Sealed Main Rivers
- Defences
- Flood Storage Areas
- Areas benefiting from flood defences
- Flood Zone 3
- Flood Zone 2

Flood Zone 3 shows the area that could be affected by flooding:

- Flood Zone 2** shows the extent of an extreme flood from rivers or the sea with up to a 1 in 1000 chance of occurring each year.





Environment
Agency



N

Legend

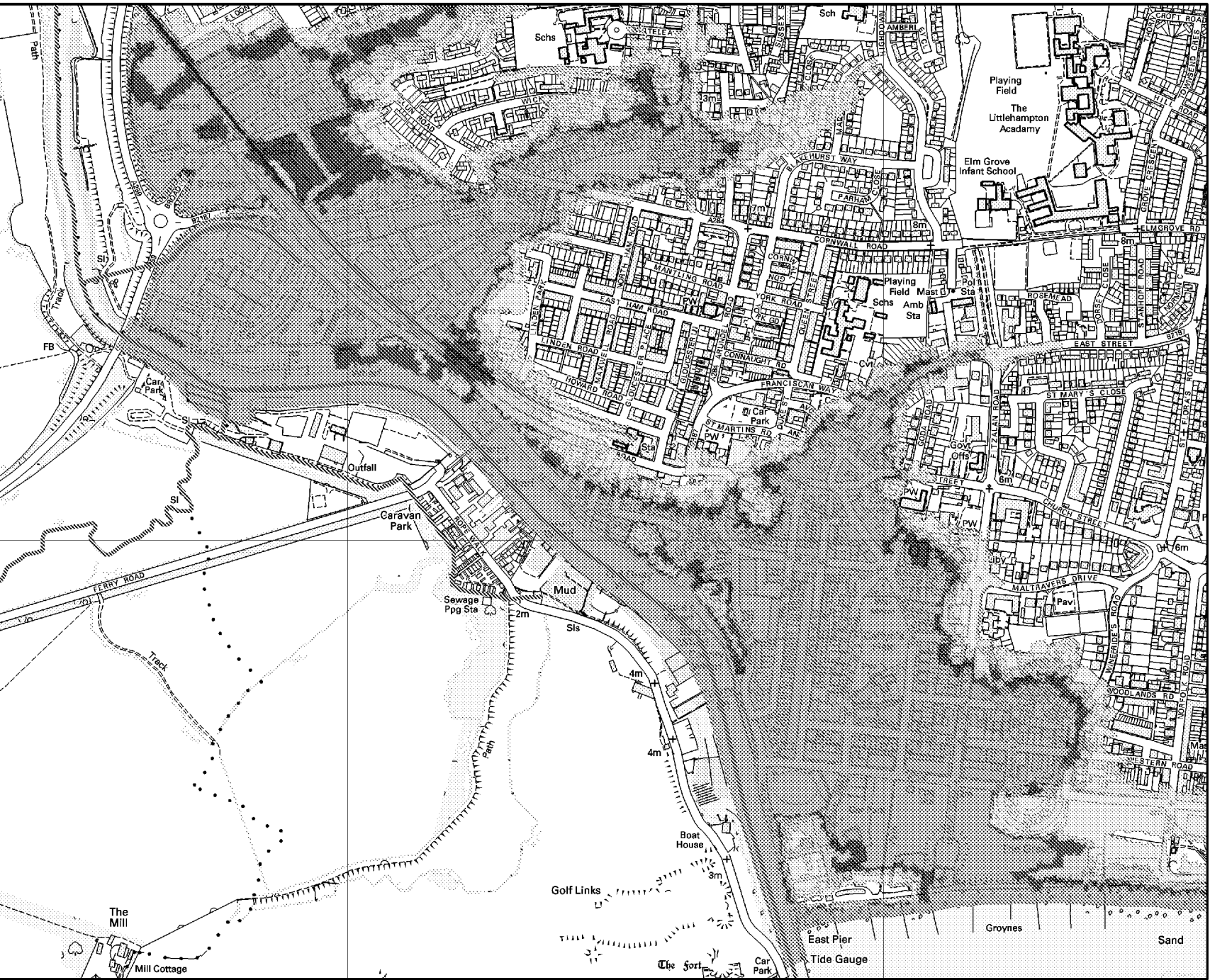
- Main River
- 0.5% AEP Defended Tidal
- 0.1% AEP Defended Tidal
- 0.5% AEP (2065) Defended Tidal
- 0.5% AEP (2115) Defended Tidal

Annual Exceedance Probability (AEP) The probability of a flood of a particular magnitude, or greater occurring in any given year.

Scale: 1:10,000

00.2250.45

Kilometers





Environment
Agency



Legend

- Main River
- 0.5% AEP (2012) (Undefended)
- 0.1% AEP (2012) (Undefended)
- 0.5% AEP (2070) (Undefended)
- 0.5% AEP (2115) (Undefended)

Annual Exceedance Probability (AEP) The probability of a flood of a particular magnitude, or greater occurring in any given year.

Scale: 1:10,000

0

0.225

0.45

Kilometers



Environment
Agency

N



Legend

 Node_Points

 Main River

Scale: 1:1,000

00.02250.045

Kilometers



Product 4 Flood Risk Data Requested by: Ambiental

Site: St John's Church Hall, 36-38 Surrey Street, Littlehampton, BN17 5BH

Table 1: Water Levels: Tidal Undefended

Node Ref	NGR		Modelled Flood Levels in Metres AOD			
	Eastings	Northings	Undefended Annual Exceedance Probability			
			0.5%	0.5% (2070)	0.5% (2115)	0.1%
1	502668	102020	3.74	4.33	4.92	4.05

Table 2: Water Levels: Tidal Defended (2017 update)

Node Ref	NGR		Modelled Flood Levels in Metres AOD			
	Eastings	Northings	Defended Annual Exceedance Probability			
			0.5%	0.5% (2070)	0.5% (2115)	0.1%
1	502668	102020	-	-	4.10	-

Table 3: Water Depths: Tidal Undefended

Node Ref	NGR		Modelled Flood Depths in Metres			
	Eastings	Northings	Undefended Annual Exceedance Probability			
			0.5%	0.5% (2070)	0.5% (2115)	0.1%
1	502668	102020	0.23	0.82	1.41	0.54

Table 4: Water Depths: Tidal Defended (2017 update)

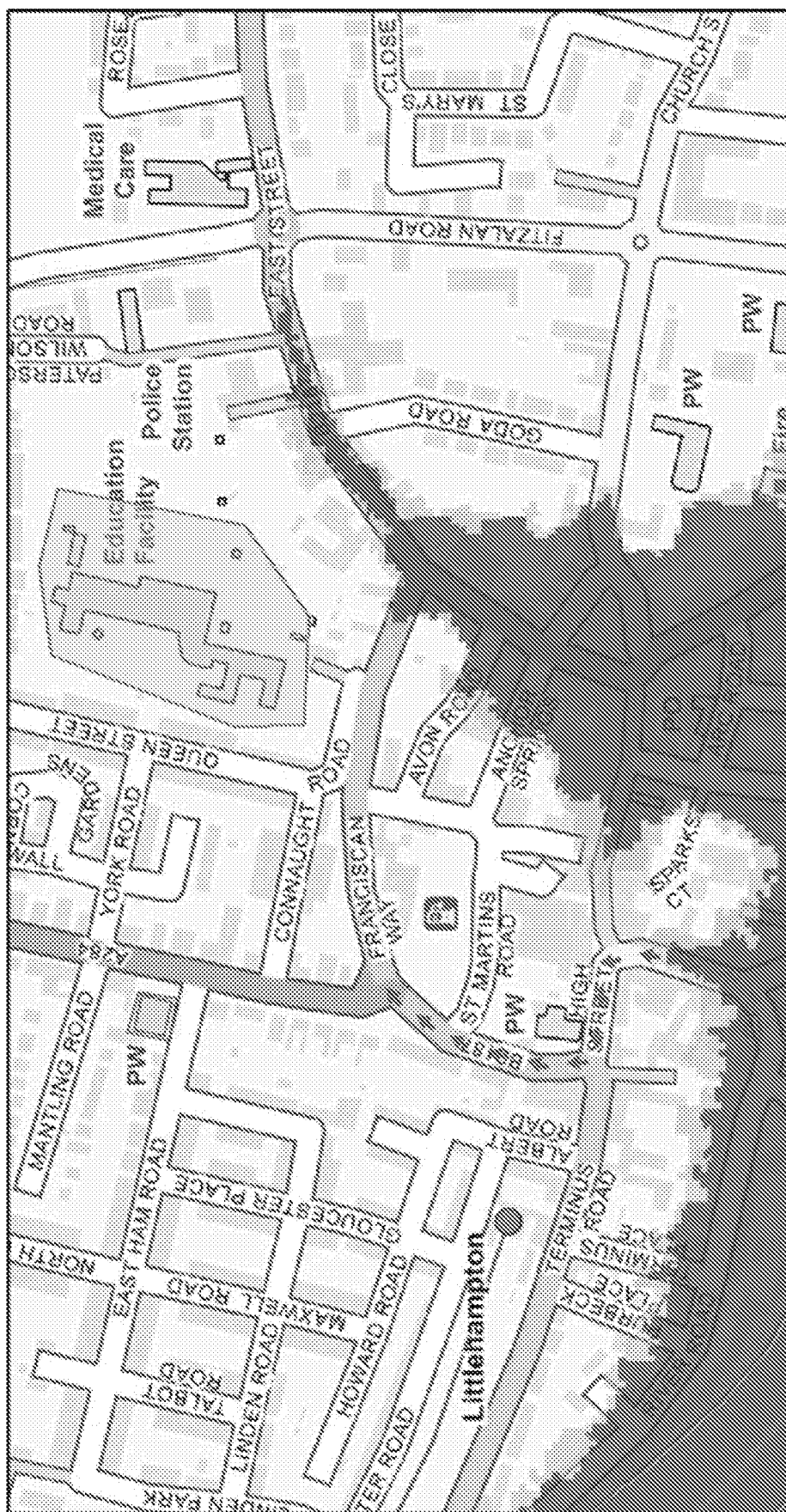
Node Ref	NGR		Modelled Flood Depths in Metres			
	Eastings	Northings	Defended Annual Exceedance Probability			
			0.5%	0.5% (2070)	0.5% (2115)	0.1%
1	502668	102020	-	-	0.59	-

All levels taken from: Arun to Adur Coastal Modelling, 2012, JBA Consulting. A model update was run in 2017 to take into account the new flood defences.

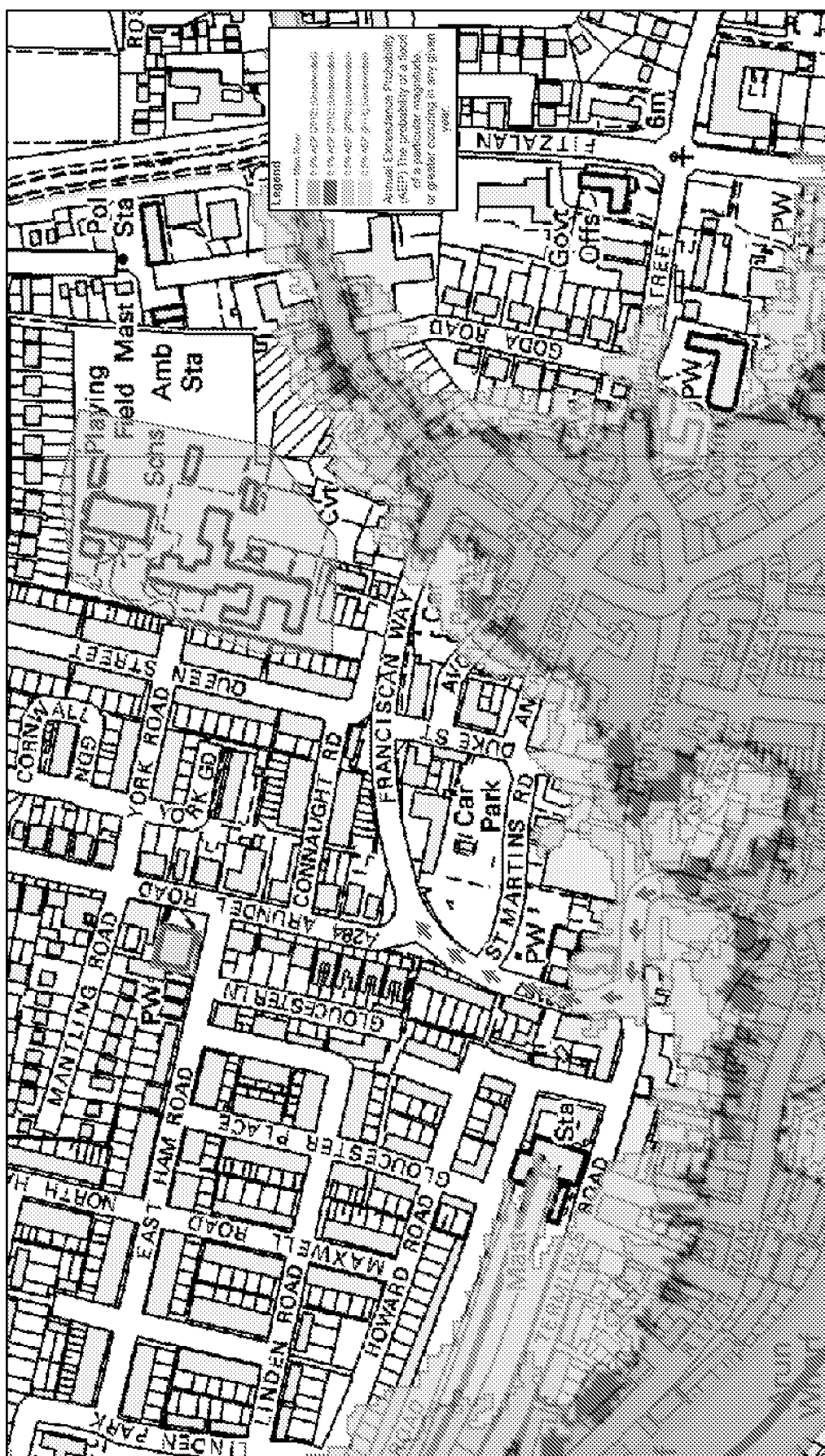
Produced on: 13/11/2018

There is no additional information or health warnings for these levels/depths or the model from which they have been produced.

Appendix III - Proposed Evacuation Route



Proposed evacuation route (green arrows) and potential places of safe refuge – shown as green polygons (Source: EA)



Proposed evacuation route (green arrows) and potential places of safe refuge — shown as green polygons (Source: EA)