

Ronnie McGregor

From: Dean Parkman <dean@deanparkman.co.uk>
Sent: 03 December 2019 16:08
To: Richard Castro-Parker
Cc: Daniel Vick
Subject: RE: Mermaid and Playbox
Attachments: 72475R1.pdf; 190 1 B.pdf; 190 2 B.pdf

Dear Richard,

Please find attached Flood Risk Assessment Addendum and a copy of the updated drawings including street scene as requested.

We are currently working with the applicant to obtain historic evidence of the existing building know as Mermaid and Playbox which will follow as soon as possible.

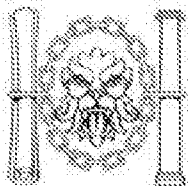
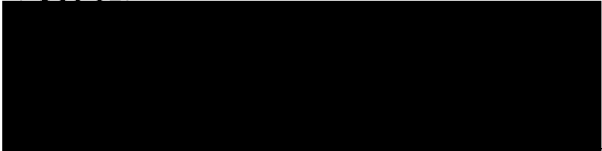
Kind Regards,

Dean Parkman BA(Hons)Arch.Tech., MCIAT, AssocRICS
Director

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From: Richard Castro-Parker [mailto:Richard.Castro-Parker@arun.gov.uk]
Sent: 15 November 2019 12:28
To: Dean Parkman
Subject: RE: Mermaid and Playbox

Dear Mr Parkman,

Thank you for the update. I will be in contact should I have any further updates to give.

Yours sincerely

Richard Castro-Parker
Senior Planning Officer (Contract)
Arun District Council

From: [REDACTED]
Sent: 14 November 2019 16:06
To: Richard Castro-Parker <Richard.Castro-Parker@arun.gov.uk>
Cc: Daniel Vick <Daniel.Vick@arun.gov.uk>
Subject: RE: Mermaid and Playbox

Dear Richard,

We have currently instructed our flood risk consultants to produce the necessary addendum to their original report, in anticipation of satisfying the EA.

We will also be producing a street scene drawing as required and we are attempting to obtain historic drawings &/ pictures of the original building that previously occupied the site.

We expect these items to be completed and ready for submission within the next 3-4 weeks.

Kind Regards,

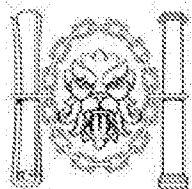
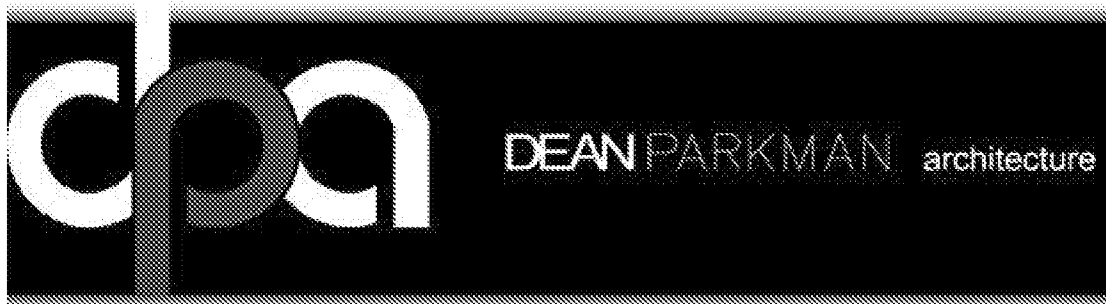
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From: Richard Castro-Parker [<mailto:Richard.Castro-Parker@arun.gov.uk>]

Sent: 08 November 2019 11:57

To: Dean Parkman

Cc: Daniel Vick

Subject: RE: Mermaid and Playbox

Dear Mr Parkman,

Thank you for the update and I look forward to your response to my earlier e-mail as below.

Yours sincerely

Richard Castro-Parker
Senior Planning Officer (Contract)
Arun District Council

From: [REDACTED]

Sent: 08 November 2019 11:54

To: Richard Castro-Parker <Richard.Castro-Parker@arun.gov.uk>

Subject: RE: Mermaid and Playbox

Thanks Richard, I will have a chat with the applicant and get back to you asap.

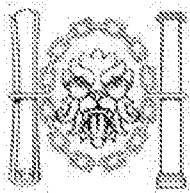
Kind Regards,

Dean Parkman BA(Hons)Arch.Tech., MCIAT, AssocRICS
Director

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From: Richard Castro-Parker [<mailto:Richard.Castro-Parker@arun.gov.uk>]

Sent: 06 November 2019 10:59

To: Dean Parkman

Cc: Daniel Vick

Subject: Mermaid and Playbox

Dear Mr Parkman,

Following our earlier telephone call today, which got cut off, I am emailing re: Mermaid and Playbox. I have discussed the application with the Area Manager and there are a number of matters that need dealing with. The firstly is, as you know, the matter of the strong objection from the Environment Agency. This matter needs dealing with otherwise the application would have to be refused with regards to the matters raised. Please could you let me know how long you think this might take you to get information across to the Environment Agency to deal with the matters they have raised. Secondly a street scene showing the relationship of the proposed dwelling with the 2 adjoining smaller single storey dwellings is considered essential. This is essential as Officers consider that the proposal could have a detrimental impact on the adjoining, single storey dwellings and as such any approval would be on balance. Therefore a street scene would allow further assessment of the impact of the proposal on the occupiers of the adjoining dwellings. Also, Officers need to establish what, if any, building(s) were previously on site. Therefore any information you might have regarding this would be welcomed.

I look forward to hearing from you regarding these matters, by reply to this e-mail.

Yours sincerely

Richard Castro-Parker
Senior Planning Officer (Contract)
Arun District Council

<http://www.arun.gov.uk>

DX 57406 Littlehampton

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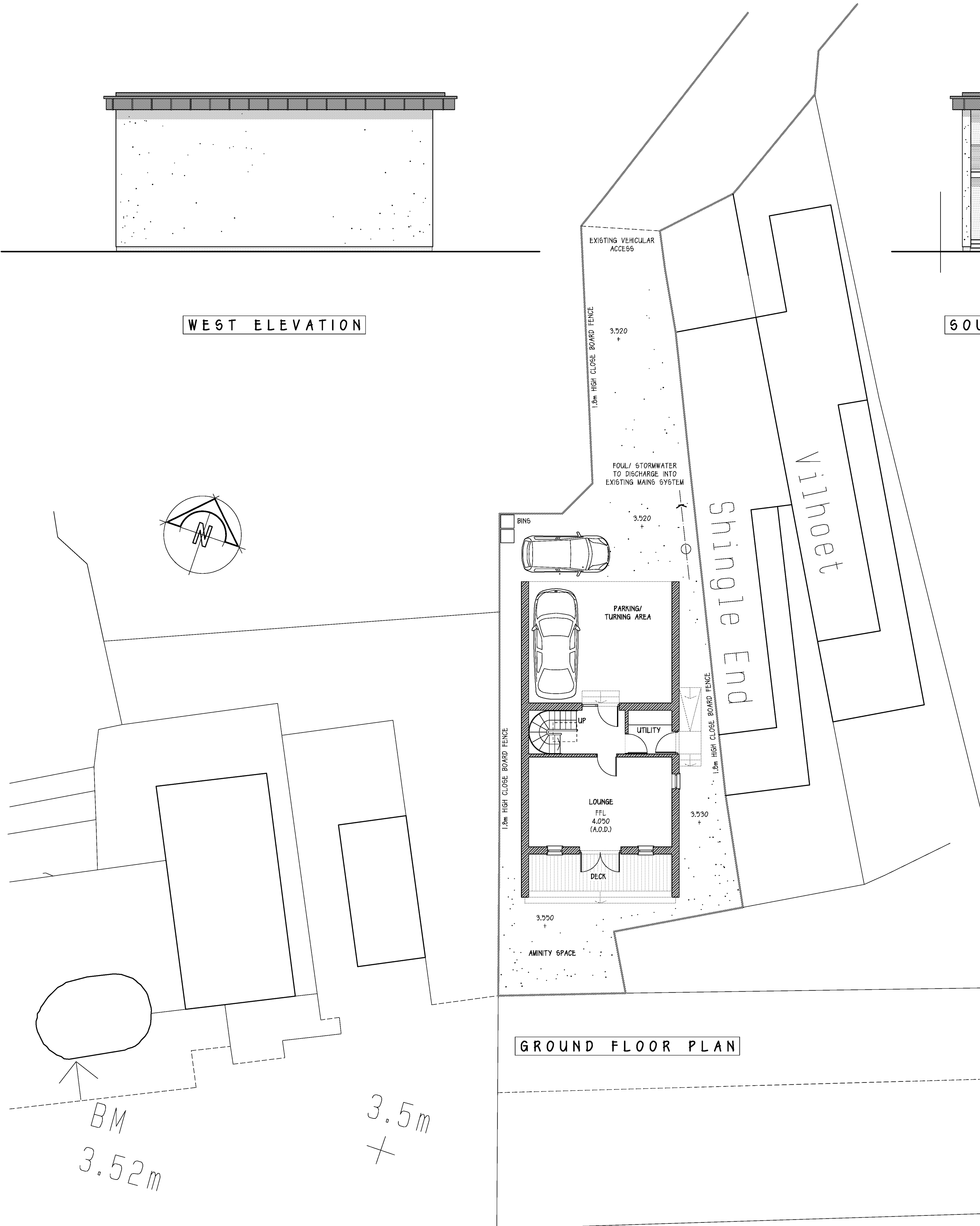
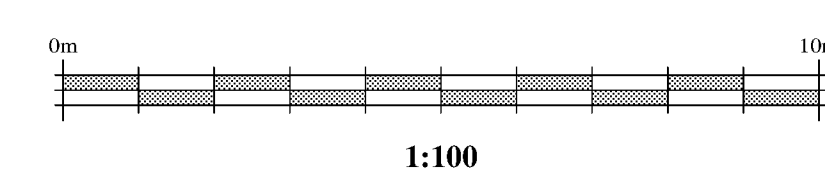
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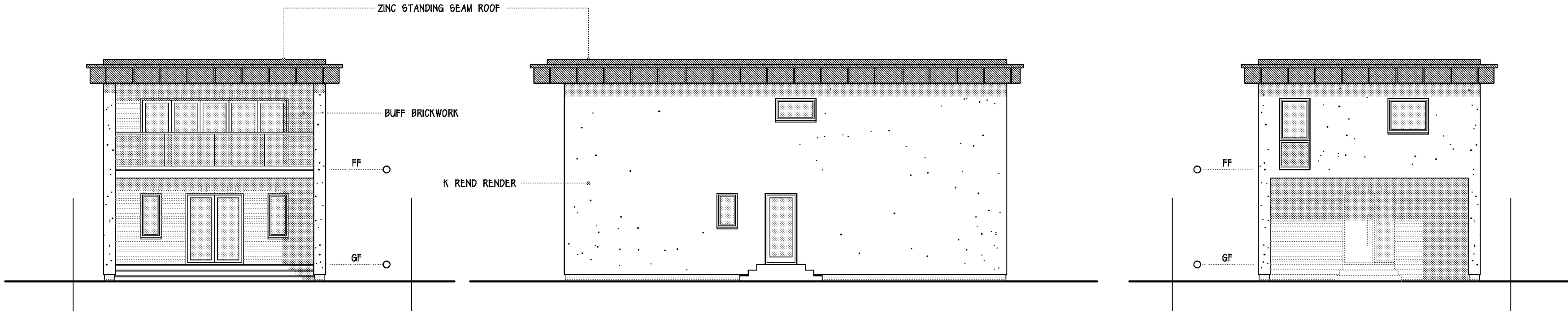
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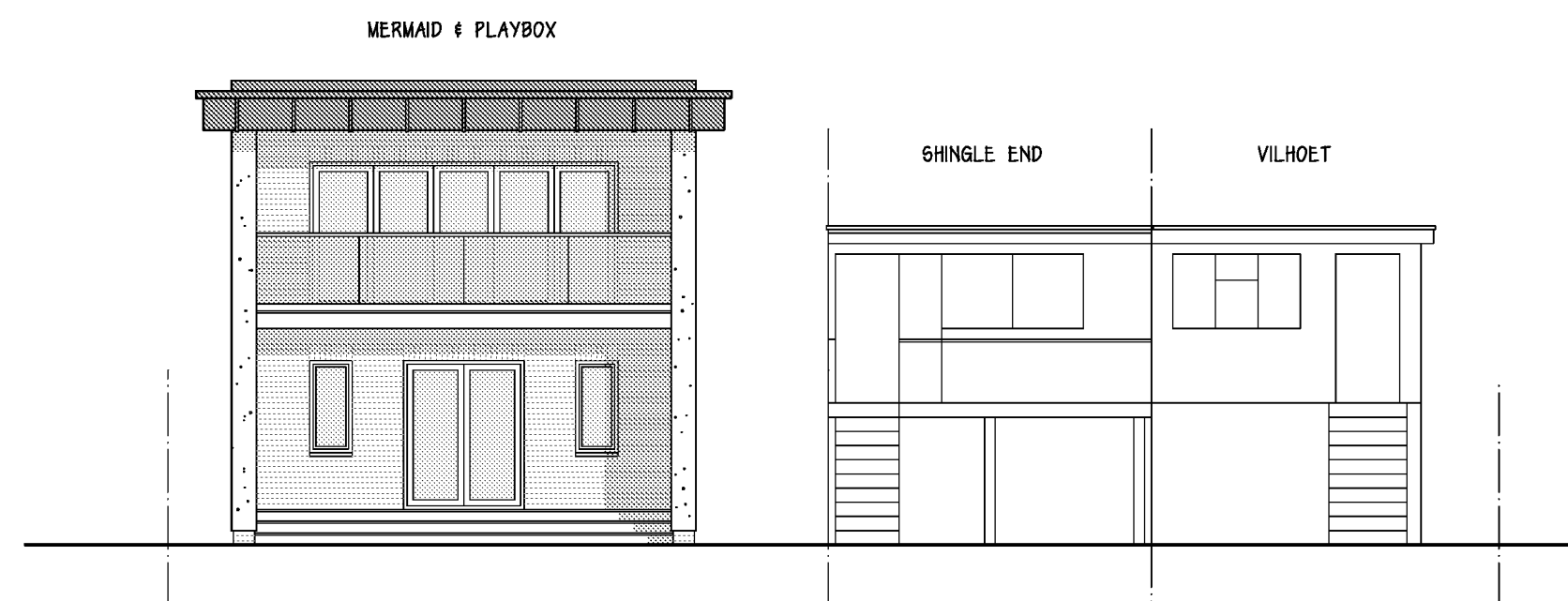
WEST ELEVATION



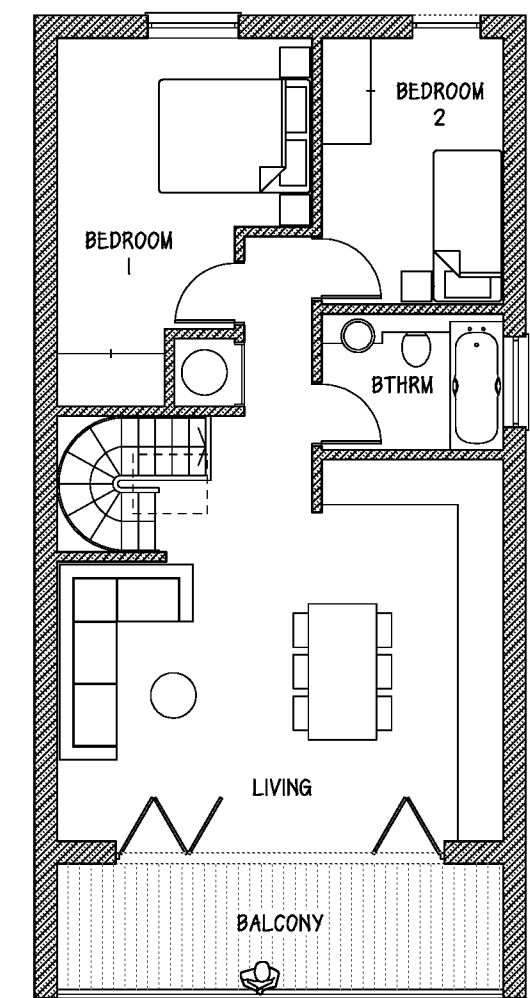
SOUTH ELEVATION

EAST ELEVATION

NORTH ELEVATION

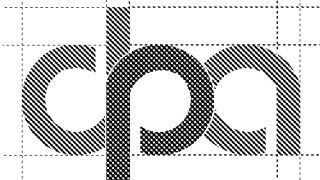


SOUTH ELEVATION - BOGNOR REGIS PROMENADE

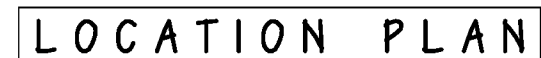
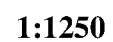


FIRST FLOOR PLAN

GROUND FLOOR PLAN

DRAWING TITLE :			
PROPOSED DWELLING			
PROJECT TITLE :			
SITE OF: 'MERMAID & PLAYBOX' SEA ROAD BOGNOR REGIS PO22 7AW			
SCALE : 1:100	JOB NO.	DWG NO.	REV.
SHEET: A1	190 : 1 : B		
DATE : AUGUST 2019			
 DEANPARKMAN architecture ARCHITECTURAL CONSULTANT & SURVEYOR Corner House, 68-70 Lugley Street, Newport, Isle of Wight, PO30 5ET tel: 01983 523709 mob: 07729778111 e-mail: dean@deanparkman.co.uk www.deanparkman.co.uk			

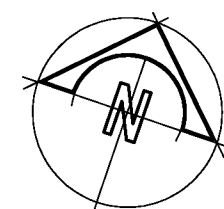
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CONSTRUCTION DESIGN & MANAGEMENT REGULATIONS 2015:
DESIGNERS HAZARD INFORMATION FOR CONSTRUCTION:
The notes below refer specifically to the information shown on this drawing. Refer to the Health and Safety Plan for further information.
1) If you do not fully understand the risks involved during the construction of the items indicated on this drawing ask your Manager, Health & Safety Advisor or a member of the Design team before proceeding.



1: 1250



1: 500



DRAWING TITLE :

PROPOSED DWELLING

PROJECT TITLE :

SITE OF: 'MERMAID &
PLAYBOX'
SEA ROAD
BOGNOR REGIS
PO22 7AW

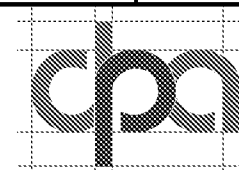
SCALE : 1: 1250
1: 500

JOB NO.	DWG NO.	REV.
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SHEET: A3

DATE : JULY 2018

190 : 2 : B



DEANPARKMAN architecture

ARCHITECTURAL CONSULTANT & SURVEYOR

Corner House, 68-70 Lugley Street,
Newport, Isle of Wight, PO30 5ET

tel: 01983 523709

mob: 07729778111
e-mail: dean@deanparkman.co.uk
www.deanparkman.co.uk



FloodSmart Addendum Note

Site address Mermaid and Playbox
Sea Road
Felpham
Bognor Regis
PO22 7AW

Site coordinates

Report prepared for

Mrs Meisels
9 Guilder Crescent
London
N16 6JT

Report reference

72475R1

Report status

FINAL

Date issued

25/11/2019

Report author

Alexandra Sherred
Consultant

Report checker

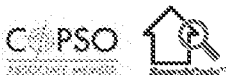
Alan White
Principal Consultant

Report reviewer

Mike Piotrowski
Principal Hydrologist

GeoSmart Information Ltd

Suite 9-11, 1st Floor,
Old Bank Buildings, Bellstone,
Shrewsbury, SY1 1HU



Registered office: Suite 9-11, 1st Floor, Old Bank Buildings, Bellstone, Shrewsbury, SY1 1HU. Registered in England and Wales, number 5475394.

1. Executive summary

Background and Information

The National Planning Policy Framework (NPPF) (2019) and National Planning Practice Guidance (NPPG) (2014) requires Flood Risk Assessments (FRA) to review flooding from all potential sources.

A review has been undertaken of a site-specific Flood Risk Assessment (FRA) produced by Eagle Eye Environmental Solutions, (2018) to assess and confirm the potential flood risk to the Site.

The original FRA undertaken by Eagle Eye Environmental Solutions, (2018) was submitted to accompany a planning application, FP/185/19/PL, for the Site but the application was refused. The refusal was attributed to the sleeping accommodation proposed at ground floor level, which would have resulted in a risk deemed to be unacceptable by the Environment Agency (EA).

On the basis of comments received from the EA in response to the proposals, the development plans have been adapted to illustrate no sleeping accommodation will be located on the ground floor. The EA also recommended flood resistance and resilience measures were included within the planning application.

Scope

This report is an addendum to the original FRA undertaken by Eagle Eye Environmental Solutions Ltd, (2018), commissioned by Dean Parkman Architecture Ltd (Report Reference: GS-5283068). For the aforementioned Site: Mermaid and Playbox which lies wholly within Flood Zone 3.

Within Section 15 of the report undertaken by Eagle Eye Environmental Solutions Ltd (2018), an analysis of tidal flood levels from the English Channel were undertaken using defended, undefended and breach data. Within this addendum, defended and breach scenario flood data has been used to inform the mitigation measures proposed within the development.

This addendum report aims to provide clarification of the revised development plans including removal of the proposed ground floor bedroom and the raising of finished floor levels to 4.05 mAOD to reduce risks to an acceptable level in the event of tidal inundation from the English Channel.

This Addendum Note should be read in conjunction with the Flood Risk Assessment, report reference: GS-5283068 written for the Site by Eagle Eye Environmental Solutions Ltd., (2018).

Proposed flood mitigation

Proposed ground floor Finished Floor Levels (FFL) for the development will be set at 4.05 mAOD¹. Furthermore, a bedroom is no longer proposed on the ground floor of the development with all sleeping accommodation raised to first floor level.

In line with the Flood Risk Assessment undertaken by Eagle Eye Environmental Solutions Ltd, (2018) further recommendations for flood resistance and resilience are provided, as suggested by the EA objection correspondence, based upon the proposed development and the flood risk to the Site:

Recommendations for additional mitigation and next steps

Additional Measures

- Non-return flap valves on the proposed foul and surface water sewer lines.
- Occupants should be signed up to the EA's Flood Warning Scheme.
- The regular maintenance of any existing and proposed drains and culverts surrounding, or on the Site should be undertaken to reduce the flood risk caused by blockages.
- A Sustainable Drainage Strategy (SuDS) should be developed for the Site, for effective management of surface water runoff from the proposed development.

GeoSmart recommend that mitigation measures that have been discussed within this report are considered as part of the proposed development where possible and evidence of this is provided to the Local Authority as part of the planning application

¹ 0.93m and 0.68m above the 2100 tidal defended and breach scenario flood levels of 3.12 and 3.37 mAOD at the Site, respectively.

2. Site analysis

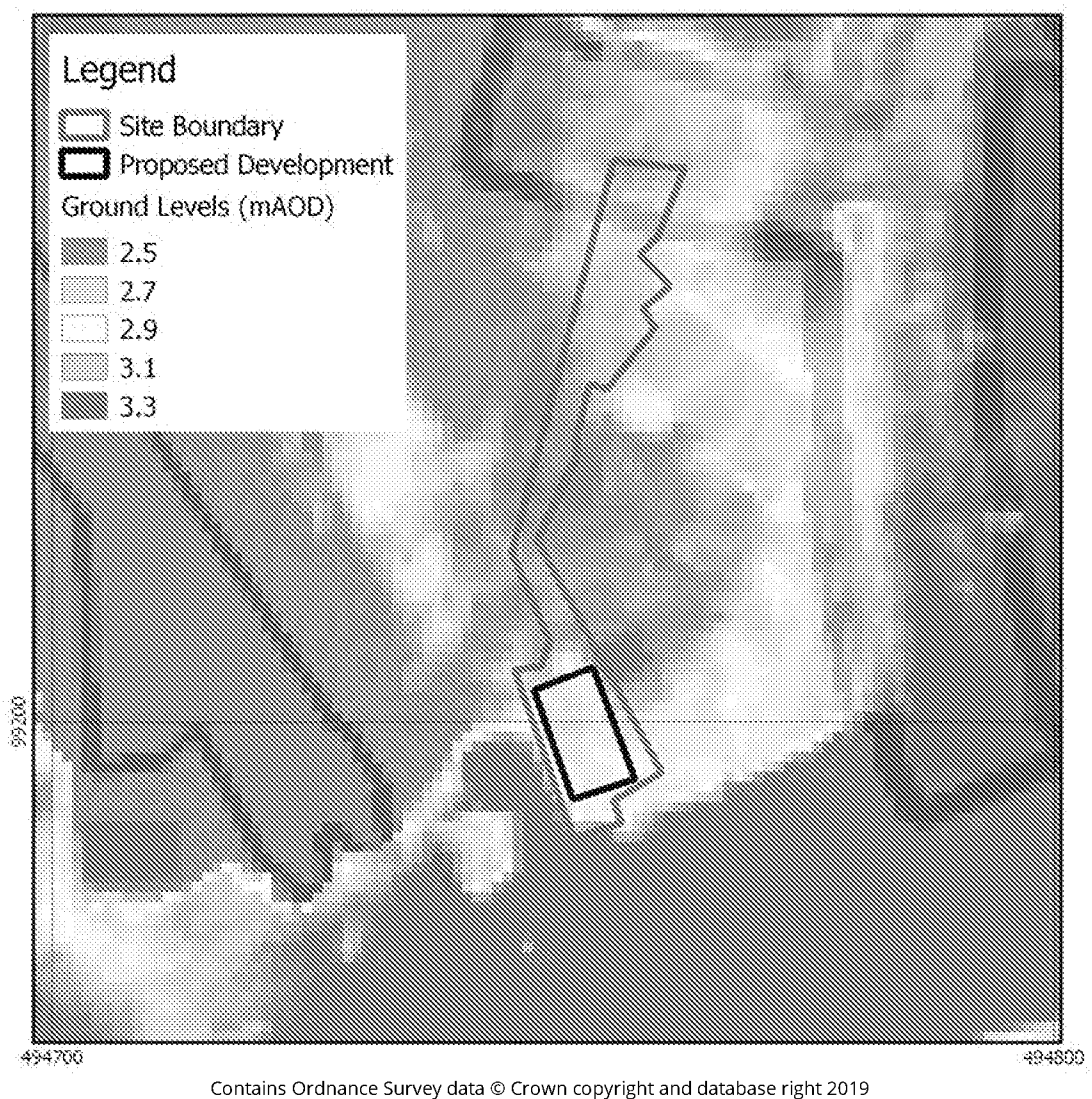


Site information

The Site is located in Felpham, Bognor Regis in a setting of greenfield land use at National Grid Reference SZ94752 99202. Site plans and drawings are provided in Appendix A.

According to a site-specific topographic survey, ground levels at the Site vary between 2.51 and 3.21 mAOD, with the Site levels falling on the access road. Ground levels on the Site proposed for the residential development vary between 2.68 and 2.85 mAOD with the Site generally level (EA, 2019) (Appendix B).

Figure 1 Site Location and Relative Elevations





Development

The Site is currently used within a greenfield capacity. Development proposals comprise the construction of a two-storey residential dwelling and combined garage facilities. The effect of the overall development will result in an increase in number of occupants of the Site and will result in the change of use, nature or times of occupation. The estimated lifespan of the development is 100 years.



Hydrological features

Ordnance Survey mapping confirms the English Channel is located 40 m south of the Site.

3. Model Analysis

Eagle Eye Environmental Solutions Ltd. (2018)

Model data

Within Section 15 of the report undertaken by Eagle Eye Environmental Solutions Ltd (2018), an analysis of tidal flood levels from the English Channel were undertaken using defended, undefended and breach data. According to the Beachy Head to Selsey Bill Shoreline Management Plan (SMP) (2006), the policy unit – Felpham to Aldwick (ref: 4d23) has adopted a “hold the line” approach on a long-term basis for Bognor Regis, where existing defences will continue to be maintained. Therefore, the EA’s defended and breach scenario flood data has been used to inform the mitigation measures proposed within the development with flood level results and potential flood depths for the Site summarized in the table below.

Table 1: Modelled flood level data

Ground Levels on Site (mAOD)	Tidal Model results from Eagle Eye Environmental Solutions Ltd report	
	Defended Flood Levels*	Breach Flood Levels*
2.51 to 3.21	2.60-3.12	2.87-3.37
Flood Depths (m)	Up to 0.61	0.36 – 0.86

*based on an annual exceedance probability of 0.5% (2115)

Based on Site elevations, the Site would be affected by up to 0.61 m of flooding in a defended scenario or between 0.36 to 0.86 m in the event of a tidal breach situation.

The proposed development has Ground floor Finished Floor Levels (FFL) set at 4.05 mAOD. Further assessment illustrates that raising finished floor levels to this level would result in the area proposed for development remaining flood free (Table 2).

Table 2: Modelled flood level data

Finished ground floor levels on area proposed for development (mAOD)	Tidal Model results from Eagle Eye Environmental Solutions Ltd report	
	Defended Flood Levels*	Breach Flood Levels*
4.05	2.60-3.12	2.87-3.37
Flood Depths (m)	No flooding	No flooding

* based on an annual exceedance probability of 0.5% (2115)

4. Resilience and mitigation

Based on the model results from the FRA undertaken by Eagle Eye Environmental Solutions Ltd. (2018), the proposed development is unlikely to flood, therefore further mitigation measures may not be required however, additional measures have been outlined within this section of the report to provide further protection to the development from flooding.

Rivers (fluvial) flood mitigation measures

The Site is located within Flood Zone 3 and the area within the Site proposed for development based on proposed ground floor FFL's is located at a higher elevation than projected tidal flood levels from the English Channel.

The vulnerability classification of the proposed development and the Flood Zone means ground floor levels should be raised. In this instance, proposals have a finished ground floor level of 4.05 mAOD and the proposed bedroom on the ground floor has been removed from plans. Analysis of model results illustrated that the Site would not flood during a defended or breach flood scenario (Table 2).

Table 3: Recommended Minimum Finished Floor Level Required

Proposed Finished Floor Level	4.05 mAOD
-------------------------------	-----------

Additional Resistance and Resilience Measures

- Non-return flap valves on the proposed foul and surface water sewer lines.
- Occupants should be signed up to the EA's Flood Scheme.
- The regular maintenance of any existing and proposed drains and culverts surrounding, or on the Site should be undertaken to reduce the flood risk caused by blockages.
- A Sustainable Drainage Strategy (SuDS) should be developed for the Site, for effective management of surface water runoff from the proposed development.

5. Conclusions and recommendations

- Ground floor FFL's will be raised to 4.05 mAOD, which is 0.93m and 0.68m above the 2100 tidal defended and breach scenario flood levels of 3.12 and 3.37 mAOD at the Site, respectively.
- All sleeping accommodation will be raised to first floor level and above.

The proposed flood mitigation measures would ensure the proposed residential development is safe for its lifetime, which is approximately 100 years

Table 5: Summary of responses to key questions in the report

Key sources of flood risks identified	Tidal (see Section 3).
Are standard mitigation measures likely to provide protection from flooding to/from the Site?	Yes (see Section 4).
Is any further work recommended?	
Proposed finished ground floor levels for the development are set at 4.05 mAOD and there is no sleeping accommodation on the ground floor. In line with the Flood Risk Assessment undertaken by Eagle Eye Environmental Solutions Ltd, (2018) further recommendations are presented below: Additional Measures • Non-return flap valves on the proposed foul and surface water sewer lines. • Occupants should be signed up to the EA's Flood Scheme. • The regular maintenance of any existing and proposed drains and culverts surrounding, or on the Site should be undertaken to reduce the flood risk caused by blockages. • A Sustainable Drainage Strategy (SuDS) should be developed for the Site, for effective management of surface water runoff from the proposed development. GeoSmart recommend that mitigation measures that have been discussed within this report are considered as part of the proposed development where possible and evidence of this is provided to the Local Authority as part of the planning application.	

6. References and glossary

Department for Communities and Local Government (2019). National Planning Policy Framework (NPPF). Accessed from:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf on 28/10/19.

Eagle Eye Environmental Solutions, Ltd (2018) Flood Risk Assessment, Mermaid and Playbox Site, Sea Road, Bognor Regis

Environment Agency (EA) (2019) LiDAR elevation data. Accessed from:

<https://environment.data.gov.uk/DefraDataDownload/?Mode=survey> on 22/11/2019

National Planning Practice Guidance (2014). Planning Practice Guidance. Flood Risk and Coastal Change. Accessed from

<http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/> on 22/11/19.

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Glossary

General terms

BGS	British Geological Survey
EA	Environment Agency
GeoSmart groundwater flood risk model	GeoSmart's national groundwater flood risk model takes advantage of all the available data and provides a preliminary indication of groundwater flood risk on a 50m grid covering England and Wales. The model indicates the risk of the water table coming within 1 m of the ground surface for an indicative 1 in 200 year return period scenario.
Dry-Island	An area considered at low risk of flooding (e.g. In a Flood Zone 1) that is entirely surrounded by areas at higher risk of flooding (e.g. Flood Zone 2 and 3)
Flood resilience	Flood resilience of wet-proofing accepts that water will enter the building, but through careful design will minimise damage and allow the re-occupancy of the building quickly. Mitigation measures that reduce the damage to a property caused by flooding can include water entry strategies, raising electrical sockets off the floor, hard flooring.
Flood resistance	Flood resistance, or dry-proofing, stops water entering a building. Mitigation measures that prevent or reduce the likelihood of water entering a property can include raising flood levels or installation of sandbags.
Flood Zone 1	This zone has less than a 0.1% annual probability of river flooding
Flood Zone 2	This zone has between 0.1 and 1% annual probability of river flooding and between 0.1% and 0.5 % annual probability sea flooding
Flood Zone 3	This zone has more than a 1% annual probability of river flooding and 0.5% annual probability of sea flooding
Functional Flood Plain	An area of land where water has to flow or be stored in times of flood.
Hydrologic model	A computer model that simulates surface run-off or fluvial flow. The typical accuracy of hydrologic models such as this is $\pm 0.25\text{m}$ for estimating flood levels at particular locations.
OS	Ordnance Survey
Residual Flood Risk	The flood risk remaining after taking mitigating actions.
SFRA	Strategic Flood Risk Assessment. This is a brief flood risk assessment provided by the local council
SuDS	A Sustainable drainage system (SuDS) is designed to replicate, as closely as possible, the natural drainage from the Site (before development) to ensure that the flood risk downstream of the Site does not increase as a result of the land being developed. SuDS also significantly improve the quality of water leaving the Site and can also improve the amenity and biodiversity that a site has to offer. There are a range of SuDS options available to provide effective surface water management that intercept and store excess run-off. Sites over 1 Ha will usually require a sustainable drainage assessment if planning permission is required. The current proposal is that from April 2014 for more than a single dwelling the drainage system will require approval from the SuDS Approval Board (SABs).

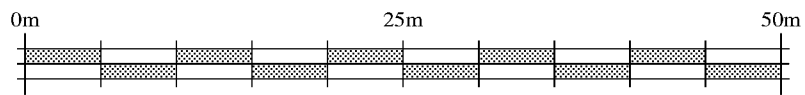
Aquifer Types

Principal aquifer	These are layers of rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale..
Secondary A aquifer	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.
Secondary B aquifer	Predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering.
Secondary undifferentiated	Has been assigned in cases where it has not been possible to attribute either category A or B to a rock type due to the variable characteristics of the rock type.
Unproductive Strata	These are rock layers or drift deposits with low permeability that has negligible significance for water supply or river base flow.
NPPF (2019) terms	
Exception test	Applied once the sequential test has been passed. For the exception test to be passed it must be demonstrated that the development provides wider sustainability benefits to the community that outweigh flood risk and a site-specific FRA must demonstrate that the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.
Sequential test	Aims to steer new development to areas with the lowest probability of flooding.
Essential infrastructure	Essential infrastructure includes essential transport infrastructure, essential utility infrastructure and wind turbines.
Water compatible	Water compatible land uses include flood control infrastructure, water-based recreation and lifeguard/coastal stations.
Less vulnerable	Less vulnerable land uses include police/ambulance/fire stations which are not required to be operational during flooding and buildings used for shops/financial/professional/other services.
More vulnerable	More vulnerable land uses include hospitals, residential institutions, buildings used for dwelling houses/student halls/drinking establishments/hotels and sites used for holiday or short-let caravans and camping.
Highly vulnerable	Highly vulnerable land uses include police/ambulance/fire stations which are required to be operational during flooding, basement dwellings and caravans/mobile homes/park homes intended for permanent residential use.

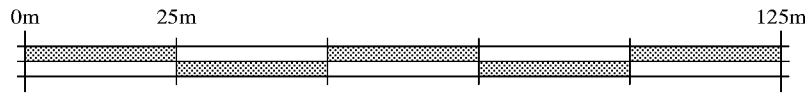
Appendices

Appendix A

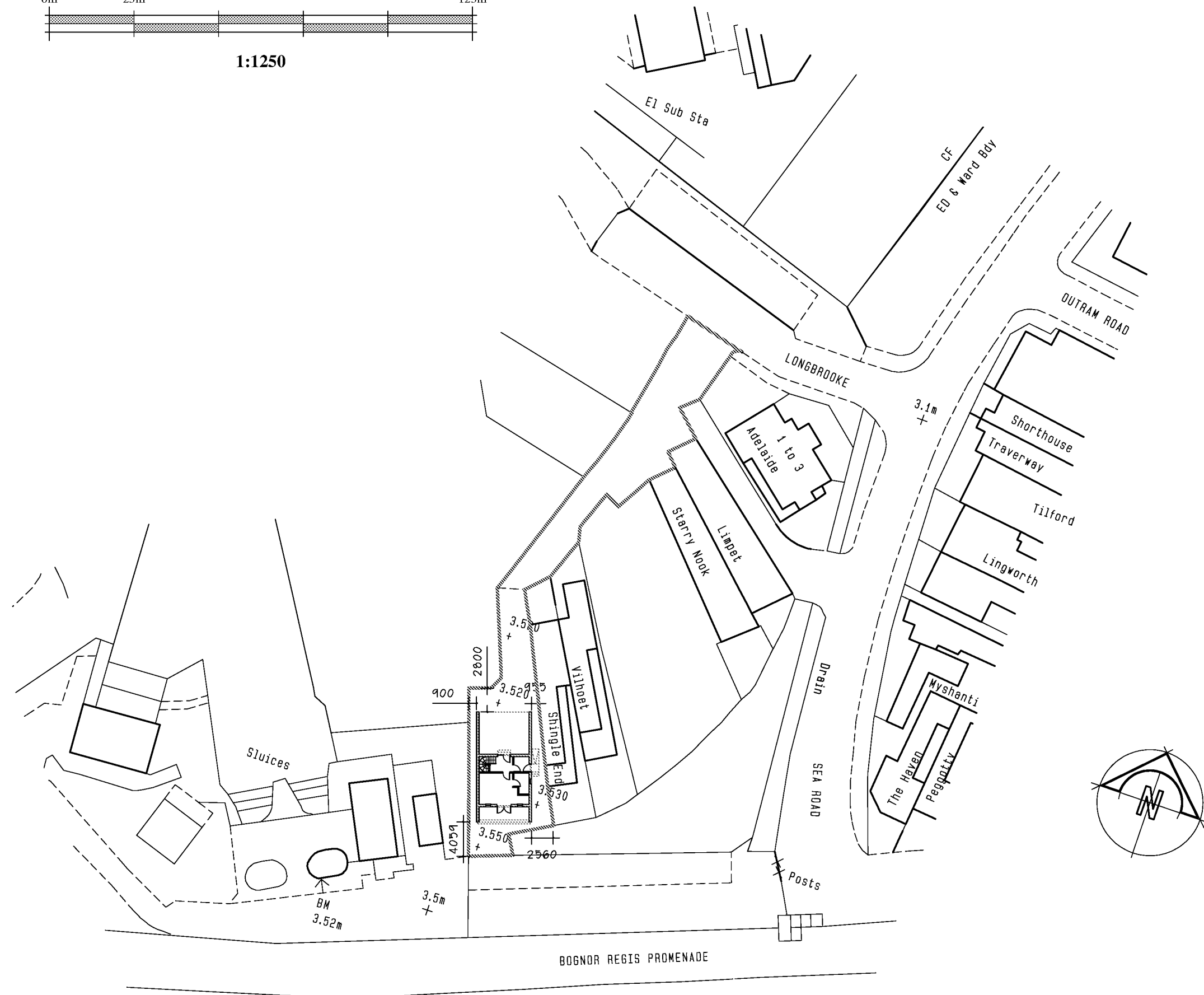
Site plans



1:500

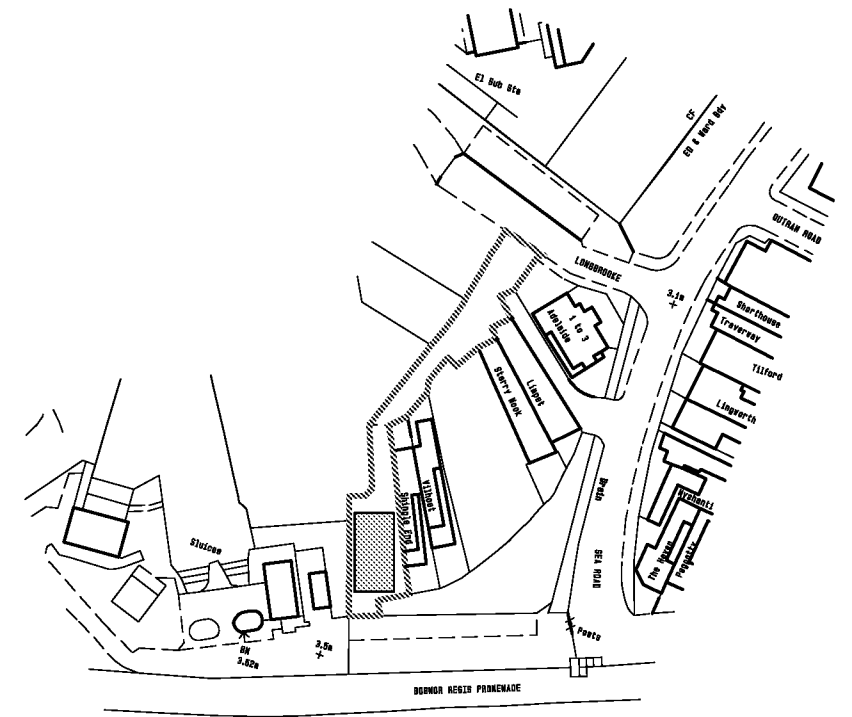


1:1250



BLOCK PLAN

1: 500



LOCATION PLAN

1: 1250

DRAWING TITLE :

PROPOSED DWELLING

PROJECT TITLE :

**SITE OF: 'MERMAID &
PLAYBOX'
SEA ROAD
BOGNOR REGIS
PO22 7AW**

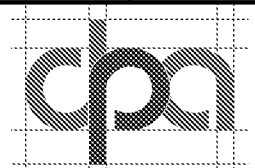
SCALE : 1: 1250
1: 500

JOB NO. DWG NO. REV.

SHEET: A3

190 : 2 : A

DATE: JULY 2018



DEANPARKMAN architecture

ARCHITECTURAL CONSULTANT & SURVEYOR

Corner House, 68-70 Lugley Street,
Newport, Isle of Wight, PO30 5ET
tel: 01983 523709

mob: 07729778111
e-mail: dean@deanparkman.co.uk
www.deanparkman.co.uk

Appendix B

LIDAR ground elevations

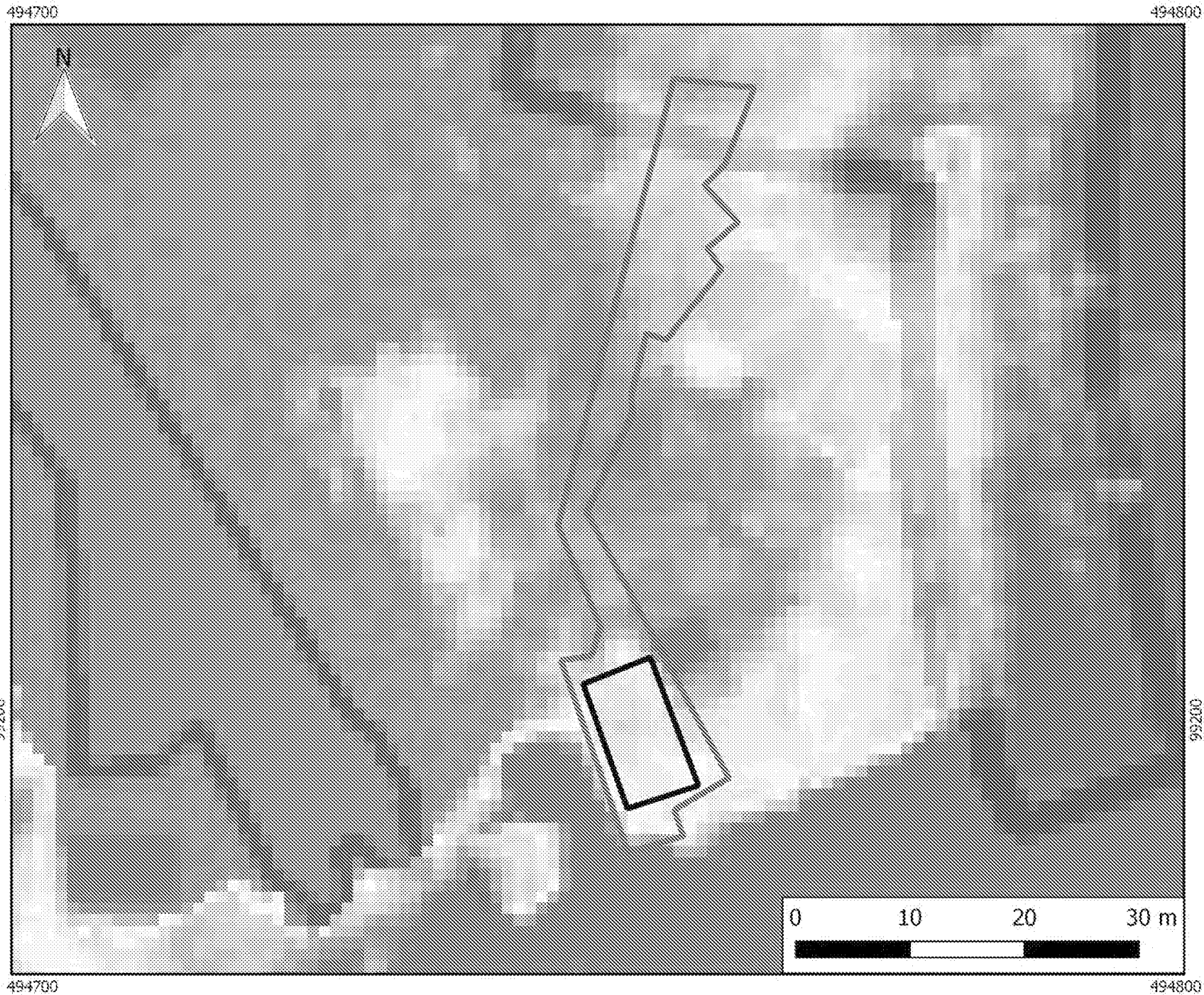


Figure D.1
Elevation on Site
(LIDAR Data)

Legend

- Site Boundary
- Development
- Ground Levels (mAOD)
- 2.5
- 2.7
- 2.9
- 3.1
- 3.3



Date 21/11/2019	Drawn
Scale 1:470	Checked
Original	Revision

File Reference

Terms and Conditions

GEOSMART INFORMATION LIMITED
Conditions of contract for environmental
reports

June 2016, Version 1.2

Definitions:

The following words shall have the
following meaning:

- a) "Client" means the person for whom the Report has been procured either directly or through an Intermediary;
- b) "Conditions" means these terms and conditions of sale, the User Guide and the Order;
- c) "GEOSMART" means GeoSmart Information Ltd of Suite 9-11, Old Bank Buildings, Bellstone, Shrewsbury, SY1 1HU, registered in England and Wales with company registration number 05475394.
- d) "Information" means environmental data, including other third party sources of information;
- e) "Intermediary" means the party that places the Order acting on behalf of the Beneficiary, who might be a lawyer, consultant or other party;
- f) "Order" means the order for Services sent by a Client or an Intermediary to GEOSMART;
- g) "Report" or "Reports" means a report which relates to environmental information (as distinct from opinion) and which is prepared by GEOSMART in respect of a Site;
- h) "Services" means the preparation and provision of Report(s) by GEOSMART from the Information;
- i) "Site" shall mean the site specified in the Order;
- j) "User Guide" means the document (if any) which may be produced from time to time by GEOSMART entitled 'GeoSmart User Guide', which may be requested with the Report by writing to GEOSMART at the above address and will be provided if applicable.

1. Conditions

1.1 Subject to receipt of a valid Order, GEOSMART agrees to supply to the Client or the Intermediary (if the Client has appointed one) the Services subject to these Conditions and the Client or the Intermediary agrees that by placing an Order for the Services it accepts these Conditions. The User Guide applicable to each Report should be read in conjunction with the Report and is incorporated into these Conditions as if it were repeated herein. A Report is sold subject to all information contained in such User Guide

1.2 GEOSMART acknowledges that in the provision of the Report and Services it owes a duty of care to the Intermediary and to the Client.

1.3 In providing search reports and services GEOSMART will comply with Search Code and will take into account the requirements of the Alternative Dispute Resolution for Consumer Disputes (Amendment) Regulations 2015. Further details are provided in the PCCB

Bulletin which accompanies GEOSMART Reports.

2. Report

GEOSMART shall use reasonable care, skill and diligence in carrying out the Services and providing the Report to the Intermediary (and the Client). However, the Report is provided to the Intermediary (and the Client) on the express basis that the Intermediary (and the Client) acknowledge and agree to the following:

2.1 information and data supplied in Report(s) is derived from the Information and GEOSMART does not warrant the accuracy or completeness of such Information;

2.2 the sources of information and data supplied in Report(s) are specifically cited in the Report and the User Guide; however, GEOSMART does not claim that these sources represent an exhaustive or comprehensive list of all sources that could or might be consulted; and

2.3 GEOSMART does not guarantee that all environmental risks that are or might be associated with the Site will be identified in the Report; and

2.4 Reports and other services provided by GEOSMART are generally professional business to business services and intended as such for use or interpretation by professional persons skilled in the use of environmental information; and

2.5 GEOSMART shall not be responsible for any error or corruption in a Report resulting from inaccuracy or omission of third party information and data provided by the Intermediary or the Client (as applicable), inaccurate processing of information and data by third parties,

computer malfunction or corruption of data whilst in the course of conversion, coding, processing by computer or electronic means, or in the course of transmission by telephone or other communication link.

3. Liability

3.1 As some of the data and information which GEOSMART interprets in Reports is obtained by GEOSMART from third parties, GEOSMART cannot control the accuracy or completeness of such data and information, nor is it within the scope of the Services to verify the data or information by a physical inspection of the Site. Save as provided in Conditions 3.5 and 3.11 GEOSMART will only be liable to the Client or to the Intermediary in respect of the Services:

3.1.1 for loss or damage caused by breach by GEOSMART of these Conditions accordingly save as provided in Condition 3.5 GEOSMART shall not be liable in any other circumstances for any errors, inaccuracies, faults or omissions in the Services;

3.1.2 for any obvious errors or obvious inaccuracies in any information obtained by it where GEOSMART should reasonably have been alerted to such error or inaccuracy;

3.2 GEOSMART has no liability whatsoever for, under or in respect of any insurance policy purchased by the Client or the Intermediary where insurance is made available to the Client or Intermediary following the provision of a Report by GEOSMART issued in accordance with these Conditions. Where such a policy has been purchased, all liability arising from or relating to the Site shall remain exclusively with the insurers. Moreover, GEOSMART is

not endorsing any policy recommended by insurers and the Client or the Intermediary is entirely responsible for ensuring the insurance policy offered is suitable for its needs and should seek independent advice.

3.3 GEOSMART does not guarantee that an insurance policy will be available for the environmental risks that may be associated with the Site specified in the Report and the provision of a Report does not constitute any indication by GEOSMART that insurance will be available for the Site.

3.4 GEOSMART has undertaken the Services for use by the Client or the Intermediary and those persons referred to at condition 5.1 and 5.2 and for no other purpose whatsoever and the Services should not be relied upon by any other third party. GEOSMART cannot accept responsibility and will not be liable to any other party for any loss caused as a result of reliance upon the Services. Any other party relying on the Services does so entirely at its own risk, including without limitation, any insurers. Recipients of the Services are to rely on their own skill and judgment in determining the suitability of the Services for their own purpose and use.

3.5 Nothing in these Conditions shall exclude or restrict GEOSMART's liability for death or personal injury resulting from the negligence of GEOSMART or their employees while acting in the course of their employment or arising from a breach of its statutory duty or fraud.

3.6 GEOSMART shall not be liable to any recipient of the Service for loss of profits, loss of contracts, (or other indirect or consequential loss or damage) resulting

from any event or default by GEOSMART in the provision of the Services to the fullest extent permitted by law.

3.7 GEOSMART shall make reasonable endeavors to supply the Report on the date agreed with the Intermediary or the Client (as applicable). This date will be taken as a guideline for time planning purposes only. Time shall not be of the essence with respect to the provision of the Services except where it has agreed in writing to a deadline with the Client or Intermediary in which it is stated that time is of the essence.

3.8 GEOSMART shall not be liable for any delay, interruption or failure in performance of its obligations hereunder which is caused by war, flood, riot, Act of God, strike or other labour dispute (including those affecting Government officials), suspension or delay of service at public registries, lack of power, telecommunications failure or overload, or computer malfunction caused by any event beyond the reasonable control of GEOSMART.

3.9 The Client or the Intermediary (as appropriate) shall on receipt of the Services make a reasonable inspection of the Site to satisfy itself that there are no apparent defects or failures with respect to the description of the Site.

3.10 GEOSMART's liability under the Conditions shall cease upon the expiry of six (6) years from the date when the Client, Intermediary or any person making use of the Report in accordance with Condition 5.2 became aware that it may have a claim in respect of a particular Report provided always that there shall be no liability at the expiration of six (6) years from the date of the Report. For the

avoidance of doubt, any claims in respect of which proceedings are notified to GEOSMART prior to the expiry of the time periods referred to in this Condition shall survive the expiry of those time periods.

3.11 Subject as otherwise provided in these Conditions, GEOSMART's aggregate liability arising out of the provision or use of the Services, in contract, negligence or in any other way, for damages or loss sustained or incurred by the Intermediary shall be limited to an aggregate amount not exceeding £5,000,000 pounds. For the avoidance of doubt, if multiple parties make use of the Report, the limit referred to above applies to all users of that Report in aggregate.

3.12 GEOSMART undertakes for the duration of the six (6) year period of liability provided for by Condition 3.11 to maintain and renew annually Professional Indemnity Insurance in respect of the Services with a liability limit of not less than £5,000,000 provided that such insurance is available at commercially reasonable rates (and in such case then at the next highest limit which is available in the market at commercially reasonable rates). Details of Professional Indemnity Insurance shall be made available to the Client or Intermediary (as applicable) on request.

3.13 Where GEOSMART procures for the Intermediary, otherwise than as part of a Report, any third party service, including but not limited to, environmental reports, risk models, risk assessments, professional opinions, or any other service, GEOSMART accepts no liability whatsoever for the information contained therein.

3.14 The Client and the Intermediary warrant that they shall: (i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010; (ii) comply with such of GEOSMART'S anti-bribery and anti-corruption policies as are notified to them from time to time; and (iii) promptly report to GEOSMART any request or demand for any undue financial or other advantage of any kind received by the or on their behalf in connection with these Conditions. Breach of this clause shall be deemed a material breach of these Conditions.

4. Copyright

4.1 The Intermediary, the Client and any recipient of the Report pursuant to the provisions of condition 5.2 acknowledge that the proprietary rights subsisting in copyright, design rights and any other intellectual property rights in respect of the data and information in the Report are and shall remain the property of GEOSMART and these Conditions do not purport to grant, assign, or transfer any such rights in respect thereof.

4.2 Reports may be stored on the Intermediary's server and used on up to ten (10) units (where a "Unit" means a single client personal computer or workstation) on the Intermediary's network and any network of a recipient of the Report pursuant to the provisions of Condition 5.2. Data in Reports is deemed to be in use when it is loaded into the temporary memory (i.e. RAM) or installed onto the permanent memory (i.e. memory chip, hard disc, CDROM) of that computer.

4.3 The Intermediary, the Client and all recipients of the Report pursuant to the

provisions of Condition 5.2 are all entitled to make up to five printed copies only of any Report. Copies of the Report may be provided for information purposes for proper and lawful use only to a person who is considering whether to acquire or hold an interest in the Site or to provide funding in relation to the Site. Further copies may not be made in whole or in part without the written permission of GEOSMART who shall be entitled to make a charge for each additional copy.

4.4 The Intermediary and the Client (as applicable) shall (and shall procure that all recipients of the Report pursuant to the provisions of Condition 5.2 shall):

4.4.1 not remove, suppress or modify any trademark, copyright or other proprietary marking belonging to GEOSMART from the Services;

4.4.2 not create any product which is derived directly or indirectly from the data contained in the Services; save for products documents and advice provided by those acting in a professional or commercial capacity in accordance with 5.2.3;

4.4.3 not combine the Services with or incorporate such Services into any other information data or service;

4.4.4 not re-format or otherwise change (whether by modification, addition or enhancement) data contained in the Services save for those modifications made by those acting in a professional or commercial capacity in accordance with 5.2.3;

4.5 The mapping (if any) contained in any Services is protected by Crown Copyright and must not be used for any purpose outside the context of the Services.

5. Confidentiality and reliance

5.1 Subject to (i) full payment of all relevant Fees and (ii) compliance with this Contract, the Client or the Intermediary is entitled to rely on the report and information provided.

5.2 Subject to Condition 5.3, the Client or the Intermediary (as applicable) may without further charge make the Report available to:

5.2.1 Up to a maximum of three (3) persons who acquire or hold an interest in the Site or an interest in the Client or the entity which holds or acquires an interest in the Site save that nothing shall hereby entitle any such person to recover twice (whether directly or indirectly) in respect of the same loss nor seek recovery in respect of any loss relating to any period after such entity ceases to hold its interest or to have potential liability for the Site (whichever is the later) (unless otherwise agreed by the parties);

5.2.2 Up to a maximum of three (3) persons who provide funding to the Client or to a person at condition 5.2.3;

5.2.3 Up to a maximum of three (3) persons acting in a professional or commercial capacity for the Client in relation to the Site.

5.3 GEOSMART shall have the same duties and obligations to those persons referred to in Conditions 5.2.1, 5.2.2, 5.2.3 in respect of the Services as it has to the Client and the Intermediary, and such persons shall be entitled to rely on the relevant Report as if it was addressed to them and any such person shall be entitled to enforce each of these Conditions as if they were named as joint Client in the Order, provided always that

the person to whom the Report is made available accepts these Conditions by writing accordingly to GEOSMART citing the Report and the Site.

5.3 The Report is to be used solely for the benefit of such persons as are set out in Condition 5.1 and 5.2, and GEOSMART exclude all liability to all other persons unless GEOSMART has expressly agreed in writing to a third party taking the benefit of the Report and has been paid reasonable fees for so doing.

5.4 Any information provided by the Intermediary or the Client to GEOSMART in contemplation of the Services to be provided together with the Report will be treated as confidential information.

5.5 GEOSMART agrees not to disclose or publish any statement relating to such confidential information (in whole or in part) to any third party without the prior written consent of the Intermediary save for its provision to GEOSMART's employees who require access to the confidential information in order to perform their duties to GEOSMART.

5.6 GEOSMART will procure that its employees will maintain the confidential information in strict confidence.

6. GEOSMART's charges

6.1 The Client or the Intermediary (as applicable) shall pay GEOSMART's charges for the Services at the rate set out in the Order.

6.2. Unless otherwise stated all prices are exclusive of Value Added Tax which shall, where applicable, be payable in addition to any sum payable for the Services at the relevant rate in force from time to time,

against delivery of an appropriate tax invoice.

6.3 The Client or the Intermediary (as applicable) shall pay the price referred to in Condition 6.1 above for the Services:

6.3.1 without any set off, deduction or counterclaim;

6.3.2 GEOSMART requests upfront payment by debit or credit card (No surcharges for credit cards) or by bank transfer. A credit agreement can be set up for repeat clients with terms based on 14 days from the date of GEOSMART's invoice.

6.4 GEOSMART shall not be obliged to invoice any party other than the Client or the Intermediary (as applicable) for the provision of Services, but where GEOSMART does so invoice any third party at the written request of the Client Intermediary, and such invoice is not accepted or remains unpaid, GEOSMART shall have the right at any time to cancel such invoice and invoice the Client or the Intermediary (as applicable) direct for such Services. Where the Intermediary's order comprises a number of Services or separate elements within any one or more Services, any failure by GEOSMART to provide an element or elements of the Services shall not prejudice GEOSMART's ability to require payment in respect of the other Services delivered to the Intermediary or the Client (as applicable).

6.5 If the Intermediary or the Client (as applicable) fails to make any payment on the due date GEOSMART shall be entitled to cancel or suspend any further orders or delivery. In addition, GEOSMART may charge the Intermediary or the Client (as applicable) interest on overdue amounts at 4% over the NatWest plc base rate (as

varied from time to time) from the due date until payment in full is made (whether before or after judgment).

7. General

7.1 These Conditions constitute the entire agreement between the parties and no statement given orally or in writing should be deemed incorporated herein unless executed in writing by a director of GEOSMART and countersigned by the Intermediary or the Client (as applicable). Each of the Conditions and Sub-conditions of these Conditions is distinct and severable. If any provision of these Conditions shall be determined to be invalid, illegal or unenforceable, the remainder of these Conditions shall continue to be valid, legal and enforceable to the fullest extent of the law.

7.2 Any time or indulgence granted by GEOSMART or the Client or the Intermediary or delay in exercising any of its rights under these Conditions shall not prejudice or affect GEOSMART's or the Client's or the Intermediary's rights or operate as a waiver of the same.

7.3 GEOSMART, the Client and the Intermediary shall not be entitled to assign their respective rights or obligations pursuant to these Conditions without the prior written approval of the other parties.

7.4 GEOSMART may suspend or terminate the provision of the Services if the Client

or the Intermediary (as applicable) is bankrupt or insolvent or makes any voluntary arrangements with its creditors or become subject to an administration order or has an administrative receiver appointed over any of its assets or GEOSMART has reason to believe that any of foregoing circumstances may come into existence or any amount owing to GEOSMART that is overdue or where the Client or Intermediary (as applicable) has exceeded any credit limit.

7.5 These Conditions shall at all times be governed construed and enforced in accordance with English Law which shall be the proper law of these Conditions, and both parties thereby submit to the exclusive jurisdiction of the English courts.

7.6 Except as otherwise provided in these Conditions a person who is not a party to any contract made pursuant to these Conditions shall have no right under the Contracts (Rights of Third Parties) Act 1999 to enforce any terms of such contract and GEOSMART shall not be liable to any such third party in respect of the Products.