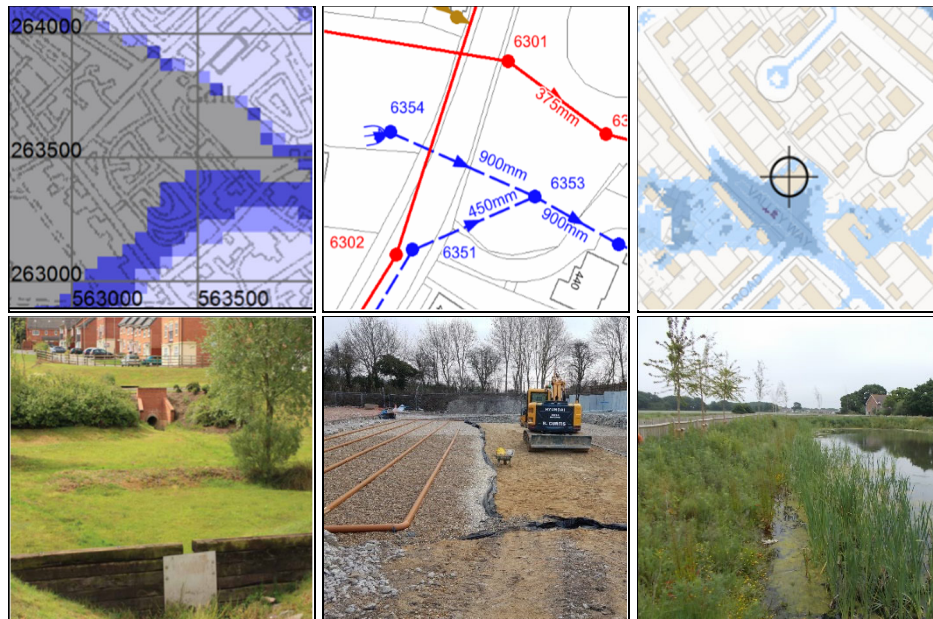




Flood Risk Assessment

1 Rope Walk Hamble, Hants

Reference: 21084

Issue: **Date:**

1 15/9/2021

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Appendices

A	Existing Layout & Proposed Site Layout
B	EA Flood Mappings
C	Conditions and Limitations

1. Introduction

- 1.1 Instructions were received from ADP Architects undertake a Flood Risk Assessment (FRA) for a planning application for a change of use and minor extension to the property at 1 Rope Walk, Hamble, Hants to form two dwellings.
- 1.2 This assessment has been undertaken by A P Traves BSc CEng MIStructE MCIHT.
- 1.3 The client's attention is drawn to the conditions and limitations contained in Appendix C.

2. Development Description & Location

- 2.1 The site comprises the former Slipway public house and grounds at 1 Rope Walk, Hamble, Hants (grid ref 448400 106775). The site extents are indicated on the annotated aerial photograph in Appendix A. The existing topography is shown on P Stubbington Land Surveys drawing 3895-01 contained in Appendix A of this report.
- 2.2 It is proposed to change of use and make a minor extension to the property to form two dwellings. The proposed layout is identified on ADP Architects drawing numbers 1719-01-A and 1799-02-B contained in Appendix A of this report.

3. Local Development Documents & Strategic Flood Risk Assessment

- 3.1 The Strategic Flood Risk Assessment (SFRA) for the Partnership for South Hampshire (PFSH) has been reviewed and this indicates the following:
- 3.2 SFRA mapping indicates the eastern edge of the site is located in Flood Zones 2 and 3 (FZ2/2) and the remainder of the site is located in FZ1.
- 3.3 The SFRA mapping does not indicate any sewer flooding within the site.
- 3.4 Hampshire CC Surface Water Management Plans (SWMP) do not identify surface water flood issues within Hamble.
- 3.5 Hampshire CC Groundwater Management Plan (GWMP) does not identify groundwater issues within Hamble.
- 3.6 Flood mapping data has been reviewed from the Environment Agency (EA) website. (refer to Appendix B). This indicates the following:
- 3.7 The EA mapping indicates the eastern edge of the site is located in Flood Zones 2 and 3 (FZ2/2) and the remainder of the site is located in FZ1.
- 3.8 The EA mapping indicates the site is at very low (<0.1%AEP) risk of surface water flooding.
- 3.9 The EA mapping indicates the site is not in an area of reservoir flood risk.

4. Catchment Flood Management & Shoreline Management Plans

- 4.1 The site is located adjacent the tidal waters of the Hamble estuary and falls within policy unit 5C05 of the North Solent Shoreline Management Plan (SMP).
- 4.2 The SMP identifies that the area in the vicinity of the site as an important heritage site including listed buildings, monuments and conservation area. The agreed policy action for the Quay and Rope Walk is to Hold the Line for all 3 Epochs.
- 4.3 The unit policy also identifies that it is uncertain if central government funding could be secured for localised defence works at the Quay and Rope Walk. The unit policy further identifies that alternative sources of funding may be available to Local Authority for adaptive management. Given the historic value of the assets these defences would

continue to protect it is considered that appropriate public funding would be secured for works to the Quay and Rope Walk to suit a managed adaptive approach phasing and timeline.

- 4.4 The South East Hampshire Catchment Flood Management Plan summary – December 2009 (CFMP) indicates the site falls within sub-area 3 Lower Hamble and Lower Meon. The CFMP states that policy 6 is the preferred policy approach:

“Areas of low to moderate flood risk where we will take action with others to store water or manage run-off in locations that provide overall flood risk reduction or environmental benefits.”

- 4.5 Overall the SMP and CFMP do not present any issues that would prohibit the development of this site with respect to flood issues.

5. Catchment Data

- 5.1 The site lies at the mouth of the Hamble Estuary and flooding is governed by tidal events and not the inland catchment.

6. Sewage Authority Data

- 6.1 The site is connected to the public sewer adjacent to the property.
- 6.2 The proposed change of use and minor extension is not considered to have any adverse impact of the public sewer.

7. Site Particulars

- 7.1 The site is some 0.03 Ha in total and comprises the public house buildings on the eastern part of the site and rear garden on the western part of the site.
- 7.2 The existing ground floor FFLs of the public house range from 3.31m AOD to the lobby access off Rope Walk to 3.82m AOD in the kitchens at the rear.
- 7.3 The rear garden is laid to decking and slabs between 5.5 and 6.5m AOD with the existing rear access out on to High Street at 5.98m AOD.
- 7.4 The footway to Rope Walk to the front of the building is at a level of some 3.0-3.2m AOD
- 7.5 The existing first floor FFLs of the public house range from 5.72 to 6.37m AOD with a direct access out to the rear gardens at 6.05m AOD.
- 7.6 The second floor FFLs are in excess of 9.0m AOD with internal access from the first floor.
- 7.7 The existing property is a listed building.
- 7.8 The site is located in the historically important area of the village and is surrounded by a mix of commercial, residential and leisure usage.

8. Source-Pathway-Receptor Assessments

- 8.1 Highway levels to The Quay continue to fall eastward from the junction of High Street with Rope Walk adjacent the site (3.0m AOD) down to the back of the shoreline some 20m east of the site. For Extreme Tidal Levels (ETL) in excess of 3.31m AOD water would reach the existing threshold level to the lobby and at levels in excess of 3.5m AOD this would progressively reach existing ground floor rooms. There is scope within the existing headroom to enable the level of the existing lobby to be raised to 3.50m AOD so for ETLs up to 3.50m AOD flood water would not enter the site and for ETLs in excess of 3.50m

there will be reliance upon the resistance and resilience of the building fabric and Property Level Protection (PLP) would be required to resist water entry into the building.

- 8.2 Flooding from the Hamble estuary is dictated by tidal events and not by catchment rainfall. Fluvial flood risk is not therefore relevant.
- 8.3 The site is indicated to be at very low <0.1%AEP risk of surface water flooding.
- 8.4 The site is not indicated to be at risk of reservoir flooding.
- 8.5 Hampshire CC Groundwater Management Plan (GWMP) does not identify groundwater issues within Warsash.
- 8.6 The SFRA does not identify any sewer flood risk within the site. The site is therefore not considered to be at risk from sewer flooding.
- 8.7 The critical flood source is tidal flooding from the Hamble estuary.
- 8.8 The flood receptors of the development would be:
- Residential dwellings
 - Users of residential dwellings
- 8.9 The proposed development and existing site classifications to Table 2 (Paragraph 066 Reference ID: 7-066-201400306) are as follows:
- | | |
|-----------------------------------|-----------------|
| • Existing drinking establishment | More vulnerable |
| • Proposed residential use | More vulnerable |

9. Flood Probability

- 9.1 The EA flood zones shown on the outputs and included in Appendix B represents current best estimates of zone 2 and zone 3 flooding. It does not take account of potential climate change impacts. The flood zone definitions to Table 1 (NPPG Reference ID: 7-065-20140306) are as follows:

Zone 1	Low probability of flooding (<0.1% AEP)
Zone 2	Medium probability of tidal flooding (0.1-0.5% AEP) Medium probability of fluvial flooding (0.1-1% AEP)
Zone 3a	High probability of tidal flooding (>0.5% AEP) High probability of fluvial flooding (>1% AEP)
Zone 3b	Functional floodplain (>5% AEP probability of flooding)

The flood map does not differentiate between zones 3a and 3b.
Zone 3b is only considered appropriate for water-compatible development.
Zone 3a is additionally considered appropriate for less vulnerable uses.

- 9.2 The current 1%AEP ETL for Warsash/Hamble (defining FZ3) is 3.1m AOD and the current 0.1% AEP ETL for Warsash/Hamble (defining FZ1/2 boundary) is 3.3m AOD. The public house and grounds are located at or above some 3.31m AOD and are therefore located in FZ1 (Low risk).

10. Climate Change

- 10.1 The new climate change allowances for flood risk assessment GOV.UK 20 July 2021 update have been used. Climate change values for the site are:
- Sea level rise: Table 2, South east, higher central cumulative 2000-2125 +1.2m

The 2000_{AD} 0.5% ETL for the site (FZ2/3) is 3.0m AOD and the 2125_{AD} ETL for the site would be 4.2m AOD. Whilst for the present ground floor FFLs (with lobby raised to 3.5m AOD) will be at least 0.4m above the current 0.5%AEP ETL, resilience and Property Level Protection (PLP) measures will potentially become increasingly important over this lifespan particularly when a freeboard is considered. Mitigating this the SMP policy for unit 5C05 indicates that to deliver the Hold The Line policy for the Quay and Rope Walk existing defences to protect the important heritage assets around this location would be adapted following the managed adaptive approach.(paragraphs 4.2 & 4.3 refer). It therefore appears likely that the SMP unit 5C05 policy actions may subsume the PLP driver but it would be prudent to provide PLP to the building anyway.

11. Sequential & Exceptions Tests

- 11.1 The application is one of change of use and minor extension which NPPF paragraph 167 directs is not subject to the Sequential Test. The premises are an existing listed building which inherently constrains the range of uses for which the building is suitable and which is economically viable to yield the development income and enable the listed heritage asset to be preserved. The property is extant and the location of it is already fixed.
- 11.2 Application of the Exceptions Test is not required.

12. Flood Risk Management Measures

- 12.1 The source pathway receptor assessment is contained in Chapter 8.
- 12.2 Paragraph 8.7 identifies Tidal flooding is the governing flood source.
- 12.3 The 2121_{AD} 1% ETL is some 4.2m AOD. This exceeds the proposed ground floor FFLs (3.50-3.82m AOD) inclusive of raising the lobby floor and therefore resistance, resilience and Property Level Protection (PLP) measures are recommended. Whilst the Hold the Line SMP policy for the unit sets out the need for an adaptive approach to defences to protecting the important heritage assets around the Quay and Rope Walk. (paragraphs 4.2 & 4.3 refer) and it is therefore likely that the SMP unit 5C05 policy actions may subsume the PLP driver, it would be prudent to provide PLP measure irrespective of sea defence works. It is recommended that resistance, resilience and PLP measures are taken into consideration but will be constrained by the listed heritage fabric. Reference should be made to the advice contained in DCLG 'Improving the Flood Performance of New Buildings – Flood Resilient Construction'. For example:

- Concrete floor construction
- Resilient floor surface and finishes to the lower part of the walls
- Utility outlets should not be located at low level

The listed status of the building will constrain the extent and nature of PLP works that can be delivered.

- 12.4 The floor level of the ground floor lobby will be raised 190mm to 3.50m AOD.
- 12.5 No sleeping accommodation is proposed to the ground floor. Sleeping accommodation is limited to the upper floors which are above 5.72m AOD and well above 2121_{AD} 0.5 ETL of 4.2m AOD.
- 12.6 Each dwelling will have an independent high level direct access from the first floor to the rear garden (5.5-6.5m AOD) well above 2121_{AD} 0.5 ETL of 4.2m AOD. The garden provides contiguous dry access from the rear access out to High Street at 5.98m AOD.
- 12.7 Residents will subscribe to the EA's Flood Warning Direct (FWD) service. Tidal flooding is forecastable sufficiently well in advance to enable the Flood Warning and Evacuation Plan

(FWEP) to be enacted deploying PLP, using the upper floors which are well above 2121_{AD} 0.5 ETL of 4.2m AOD and will retain independent safe dry access.

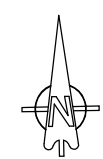
13. Off Site Impacts

- 13.1 The proposed development will have no adverse off site impact on flood risk as the site is already surfaced with paving and decking.
- 13.2 The existing premises are served by public foul sewer connection for foul water. The proposed development will maintain the existing foul water sewer connection. The change in network load is considered *de minimis*, but notwithstanding this the standing wastewater Infrastructure Charge (IC), which came into force from 1st April 2018, will be paid. Should any downstream reinforcement be required Southern Water will deliver this from the development ICs they will collect, this is however considered unlikely.

14. Residual Risks

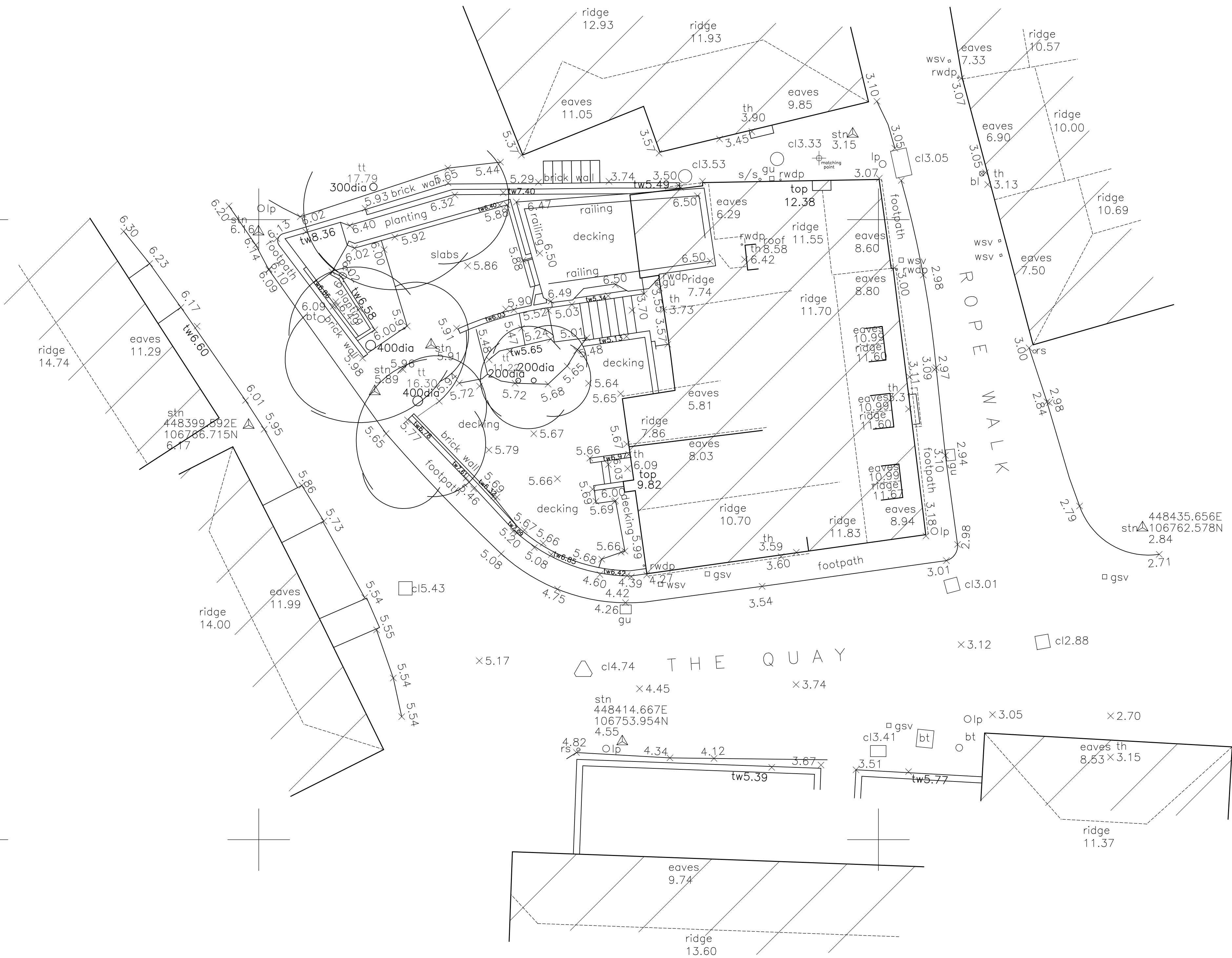
- 14.1 The proposed flood mitigation measures for the development provides for flood events up to 1%AEP 2121_{AD} tidal levels. The residual flood risk is therefore tidal events in excess of 1%AEP 2121_{AD}.

Appendix A



INDICATIVE

KEY:	
bt	British Telecom
cb	Control Box
cl	Cover Level
ctv	Cable Television
dk	Drop Kerb
el	Electric
ep	Electricity Pole
fh	Fire Hydrant
gu	Gully
gsv	Gas Stop Valve
ht	Height
ic	Inspection Cover
il	Invert Level
lp	Lamp Post
nkr	Marker
o/h	Overhead
pb	Post Box
pxg	Prun Crossing
np	Name Plate
rs	Road Sign
sv	Stop Valve
tb	Telephone Box
tl	Traffic Light
tt	Top of Tree
th	Threshold
tw	Top of Wall
utl	Unslid to Lift
vp	Vent pipe
wn	Water Meter
wsv	Water Stop Valve



NOTES:
LEVELS RELATE TO OS DATUM
TREE SPECIES SHOULD BE VERIFIED WHERE OF
CRITICAL IMPORTANCE
THE ARCHITECT SHOULD SATISFY HIMSELF THAT ALL TREES
LIKELY TO AFFECT HIS DESIGN HAVE BEEN SHOWN
INTER CONNECTION OF MANHOLES SHOULD BE VERIFIED
WHERE OF CRITICAL IMPORTANCE USING CCTV
PIPE SIZES & INVERTS DETERMINED WITHOUT
ENTRY INTO MANHOLE

P STUBBINGTON LAND SURVEYS LTD

THE MEAD
DURLEY BROOK ROAD
DURLEY
SOUTHAMPTON
HAMPSHIRE
SO32 2AR
TEL : 023 8060 1876
MOBILE: -
07973 348165
EMAIL: -
PAUL@PSLANDSURVEYS.COM

CLIENT: - A LOIZOU

CONTRACT: - THE SLIPWAY
HAMBLE-LE-RICE
HAMPSHIRE

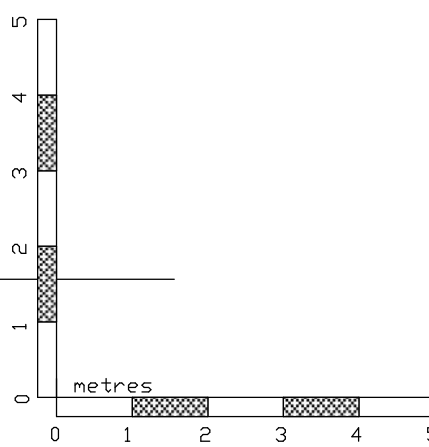
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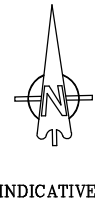
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DRAWING NO. 3895/01

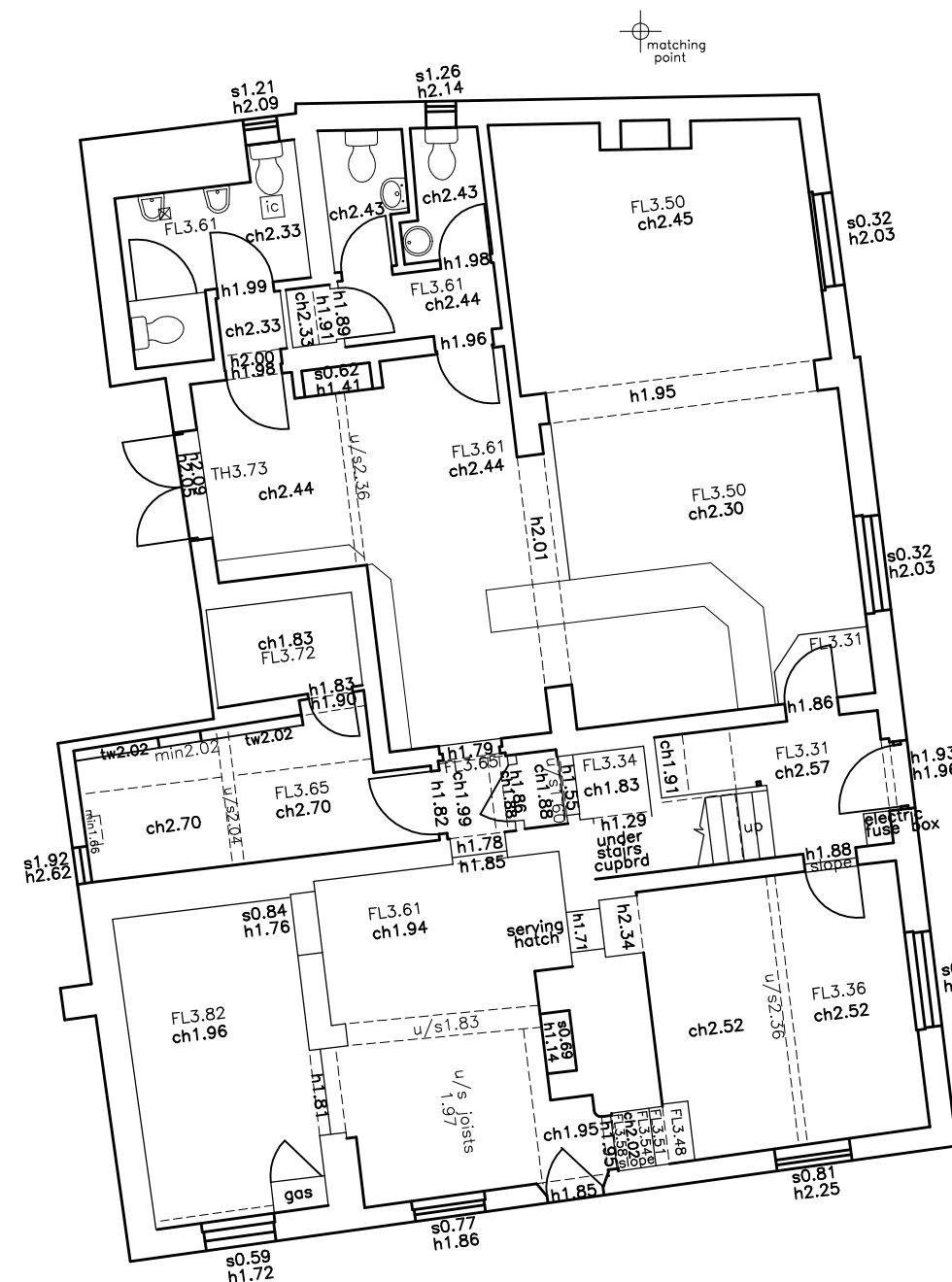
DATE: - JANUARY 2018

SURVEYOR: - PS

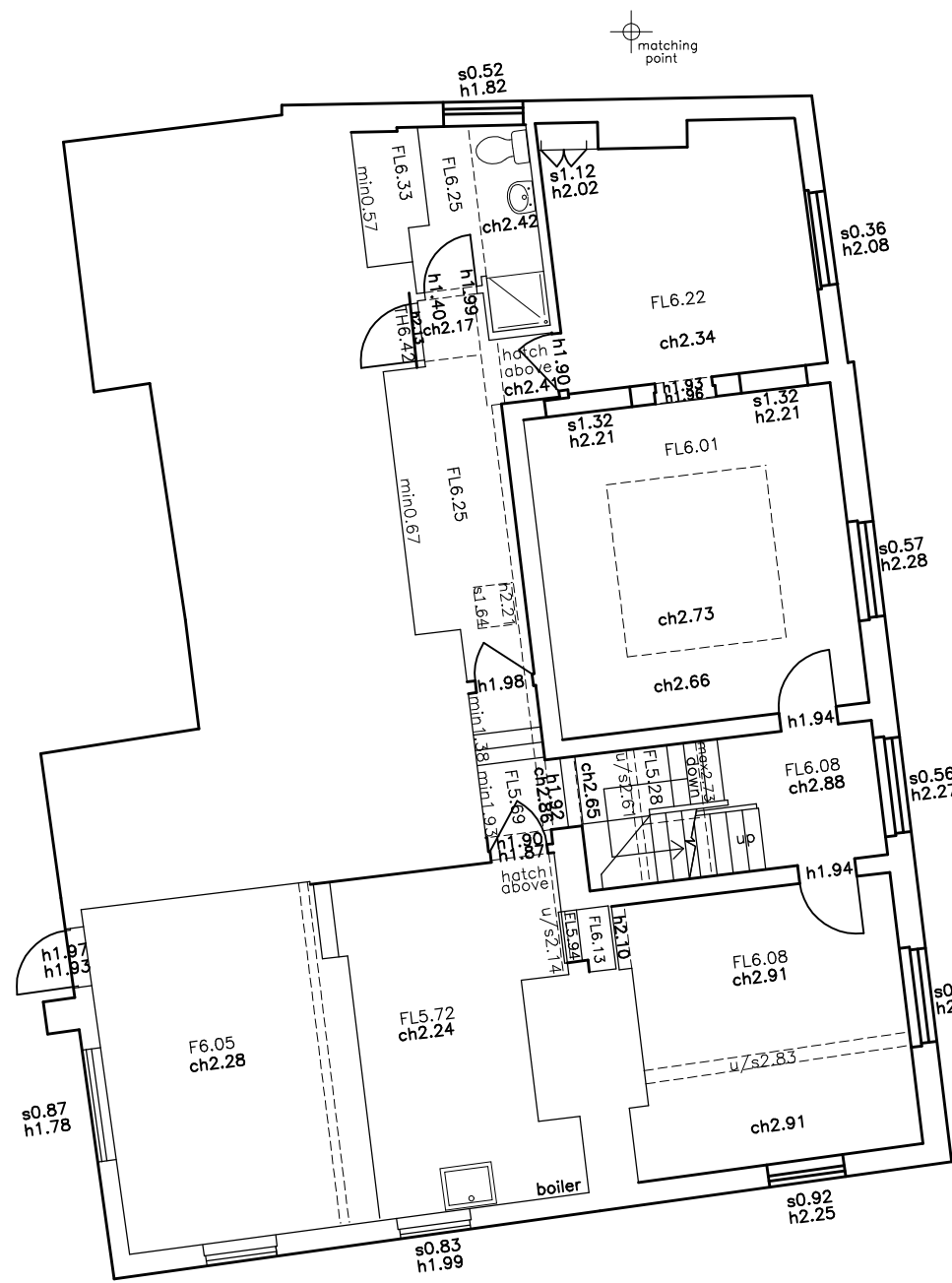




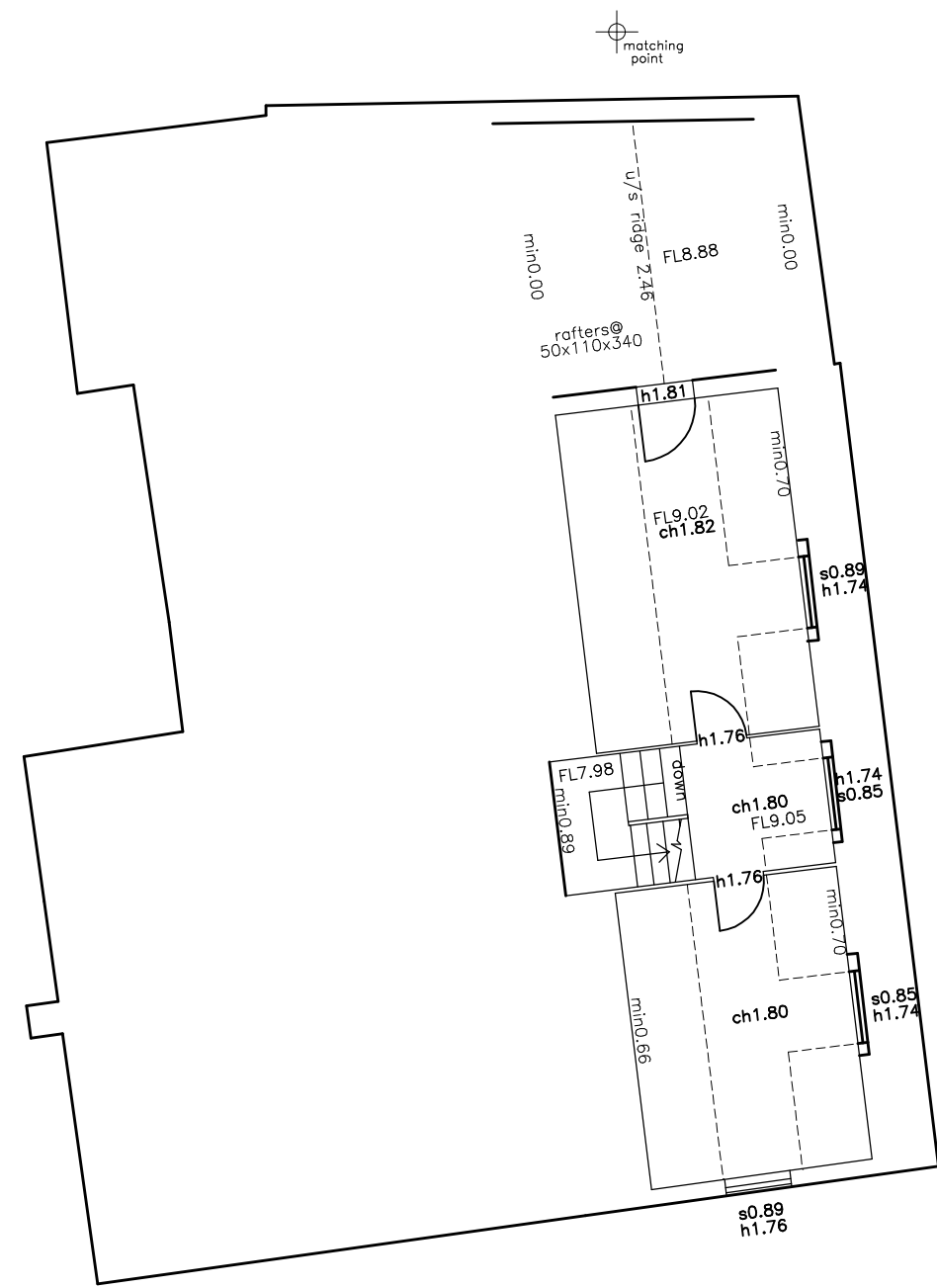
key-	ceiling height
ch	floor level relative to external survey
fl	head height from floor
h	immersion heater
im	minimum height from floor
min	maximum height from floor
max	sill height from floor
s	height to underside
u/s	



GROUND FLOOR PLAN



FIRST FLOOR PLAN



SECOND FLOOR PLAN



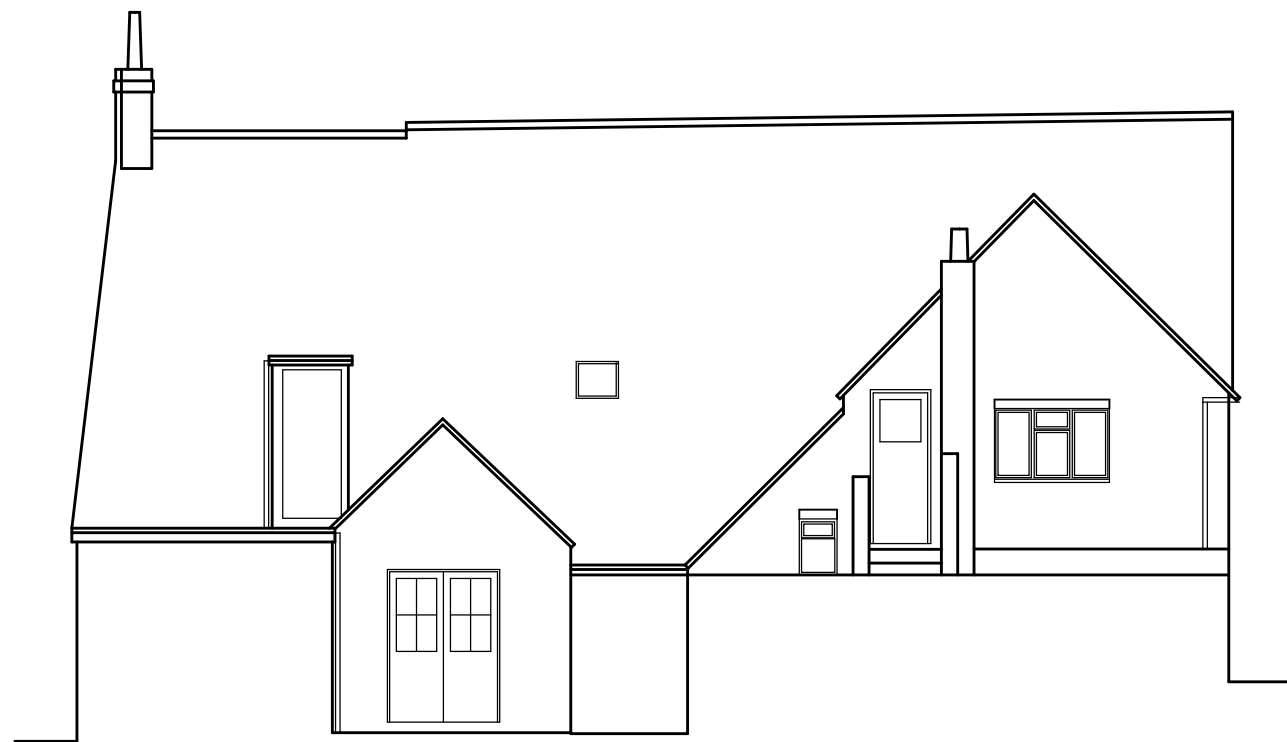
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NORTH ELEVATION



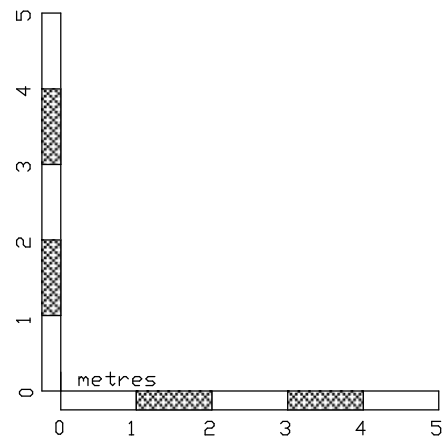
0.00m DATUM
EAST ELEVATION



0.00m DATUM
SOUTH ELEVATION

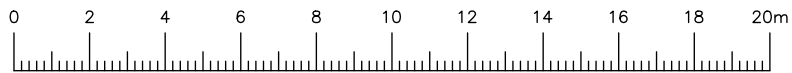


0.00m DATUM
WEST ELEVATION



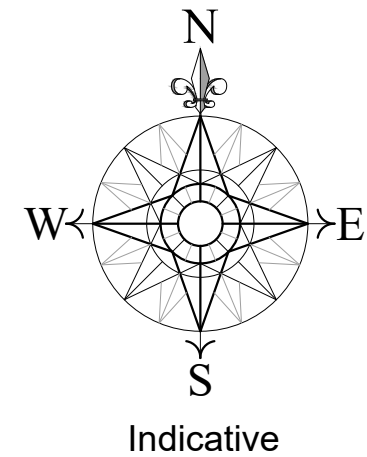
NOTES:
LEVELS RELATE TO D.S. DATUM

P STUBBINGTON LAND SURVEYS LTD	
THE MEAD DURLEY BROOK ROAD DURLEY SOUTHAMPTON HAMPSHIRE SO32 2AR TEL : 023 8060 1876 MOBILE: - 07973 348165 EMAIL: - PAUL@PSLANDSURVEYS.COM	
CLIENT: -	A LOIZOU
CONTRACT: -	THE SLIPWAY HAMBLE-LE-RICE HAMPSHIRE
TITLE: -	MEASURED BUILDING SURVEY
SCALE: -	1: 100 @A1
DRAWING NO.	3895/02
DATE: -	JANUARY 2018
SURVEYOR: -	PS



LINEAR SCALE 1:200
A3 @ 1:200

SITE LAYOUT 1:200



RIBA

Chartered Practice

arb

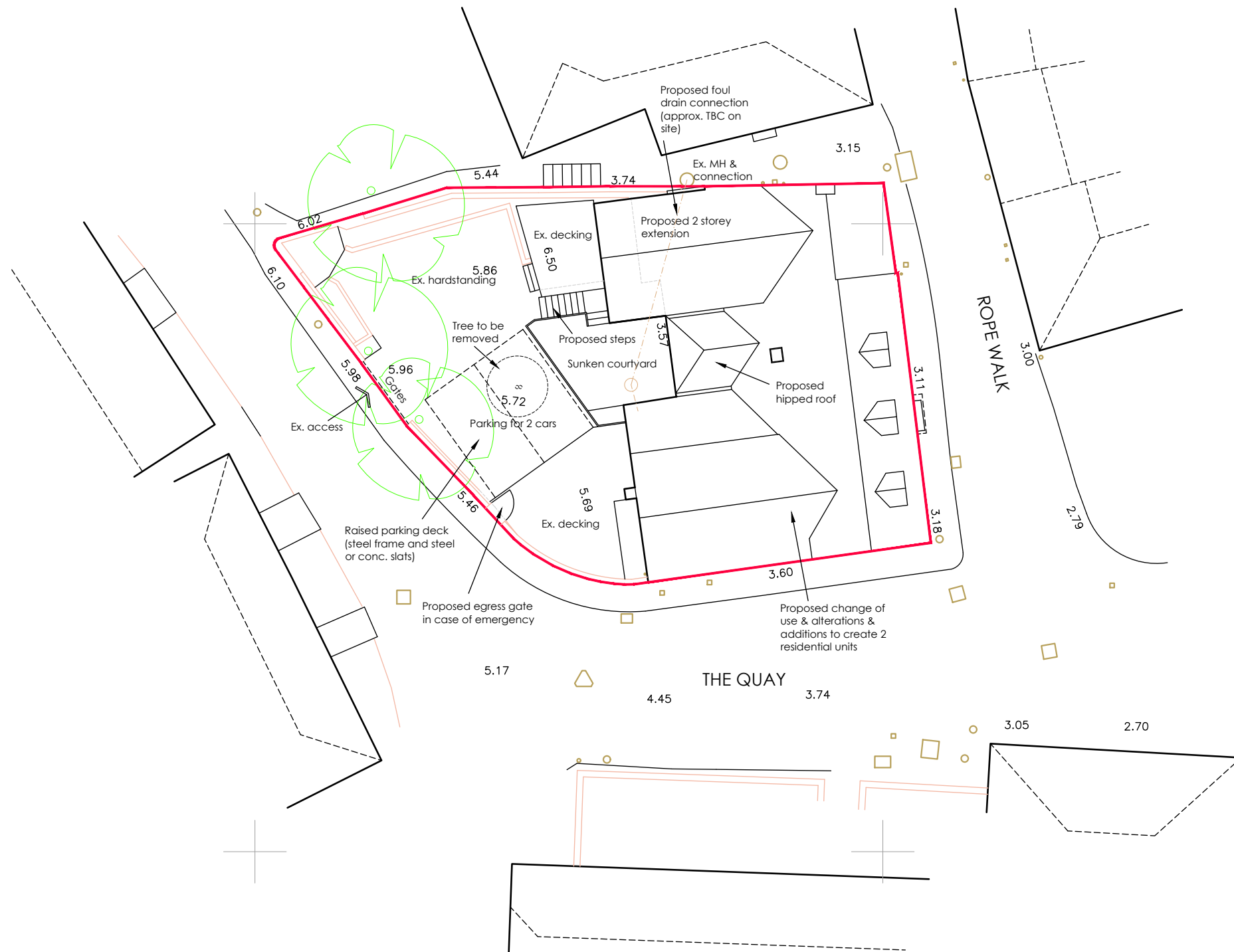
Architects Registration Board

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The site is based on a topographical survey undertaken by Paul Stubbington Land Surveys (ref: 3895/01).

LEGEND

- Existing trees
 - Existing trees to be removed
 - Existing hedges/planting
 - Existing hedges/planting to be removed
 - Proposed planting (subject to detailed landscape design)
 - Existing Levels
 - Proposed levels – dpc/finished floor & finished ground levels (subject to engineers design)
 - Proposed SW drainage
 - Existing foul drainage
 - Proposed foul drainage
- Foul & sw drains where shown are for guidance purposes only & may vary due to site conditions, SWA & building control approval, etc.
SWA approval will be required when building over or close to a sewer.
Previously shared private drains are now likely to be considered public sewers.



B	7.09.21	Levels/egress gate
A	27.07.20	Tree and note update
rev:	date:	note:

adp

architects & urban designers

Tel: 0845 365 1475

Email: mail@adp-ltd.co.uk

www.adparchitectsltd.co.uk

Richmond Court, 94 Botley Road, Park Gate, Southampton, SO31 1BA

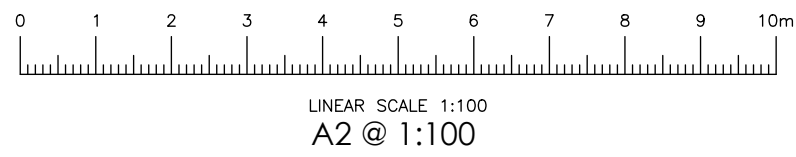
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Residential Conversion
The Slipway
Rope Walk
Hamble
SO31 4HB

client:
Mr A Loizou

drawing title:
Site Layout

job number:	drawing number:	revision:
1799	01	B

drawing scale/size:	date:	drawn:
1:200 (A3)	Feb 18	



PROPOSED PLANS 1:100

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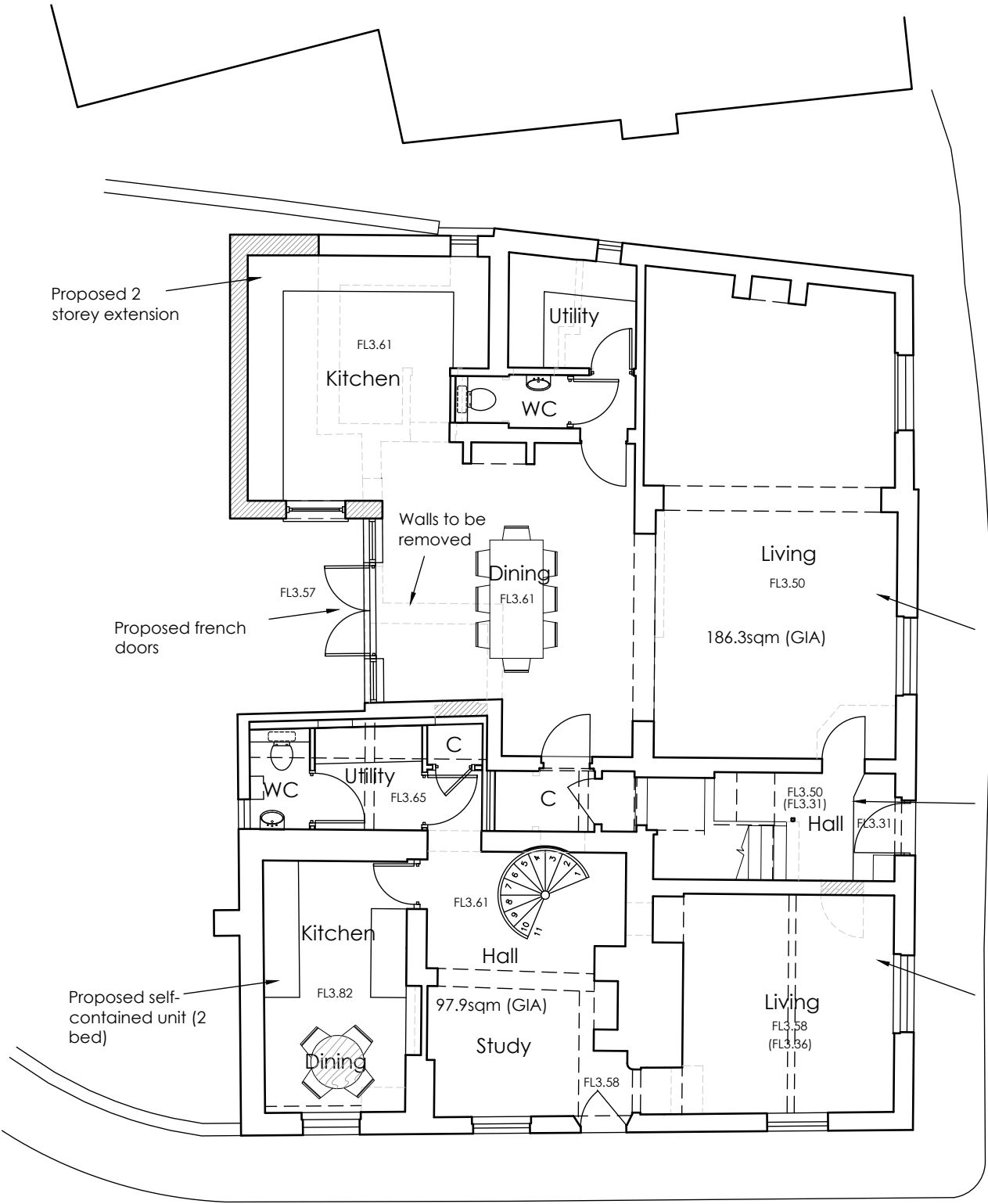
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Drawing For Planning Purposes Only

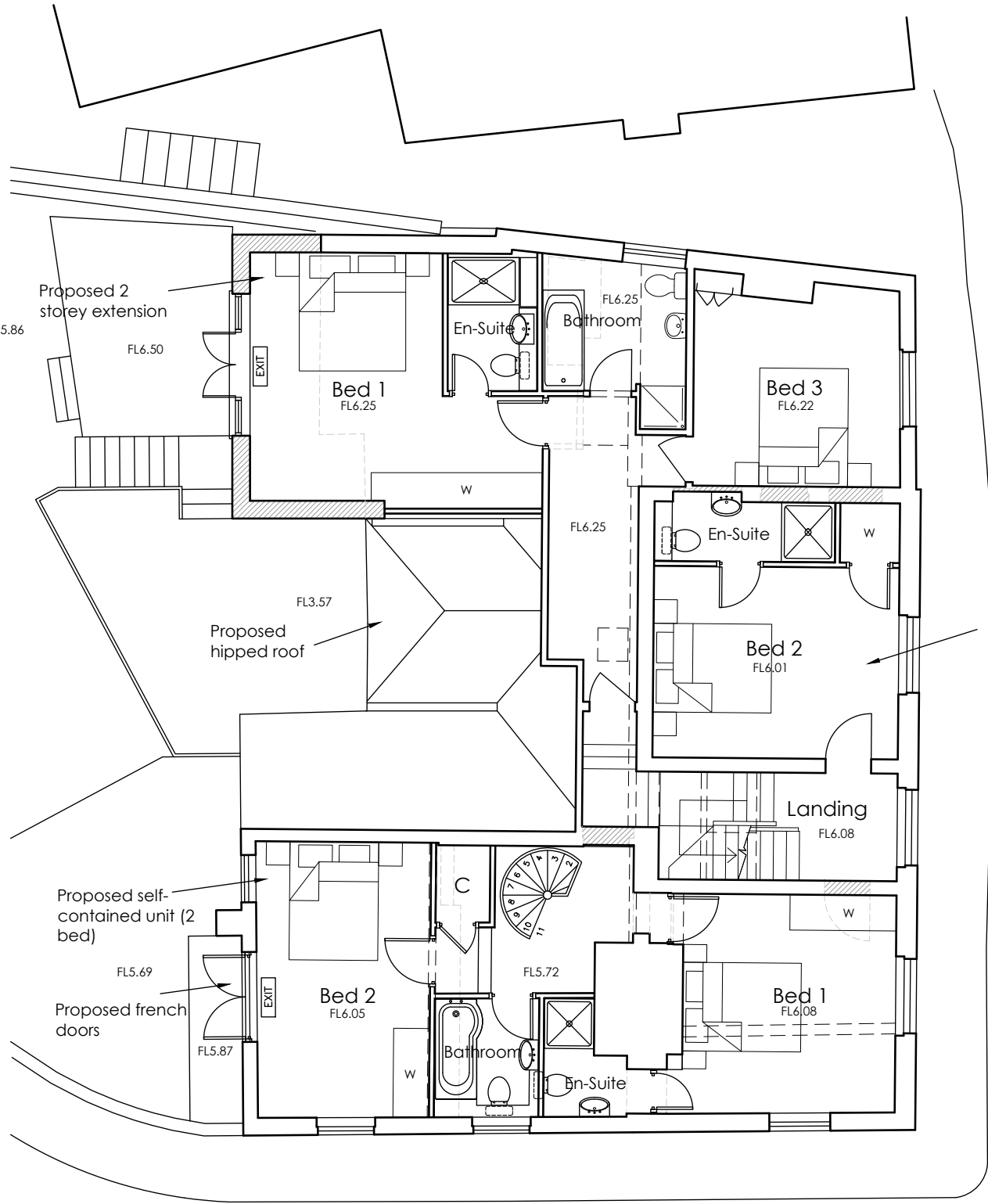
All dimensions and details on this drawing are for planning purposes and should not be used for fabrication and erection purposes. DO NOT scale from this drawing, except for planning purposes, use figured dimensions if available. Any discrepancies should be highlighted without delay.

Note: This drawing has been produced with information from a topographical survey carried out by others. All information therefore derived from the survey drawing is assumed to be accurate and ADP Architects Ltd cannot be held accountable for any discrepancies discovered on site.

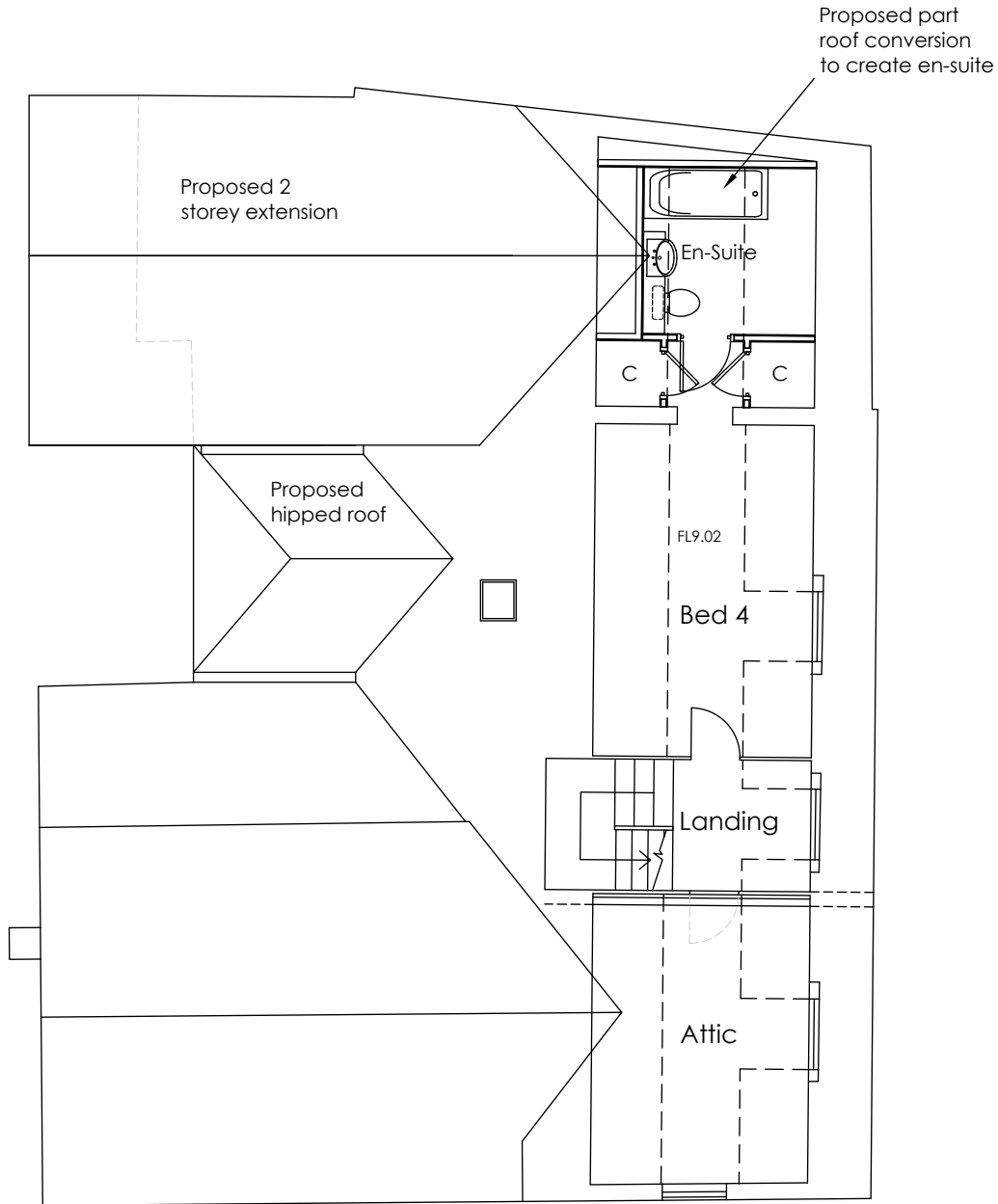
IF IN DOUBT ASK FOR CONFIRMATION.



Ground Floor Plan 1:100



First Floor Plan



Second Floor Plan

B 7.09.21 Internal redesign (bedrooms 1st floor)/levels

A 27.07.20 Planning issue

rev: date: note:

adp architects

architects & urban designers

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Email: mail@adp-uk.co.uk

www.adparchitects.co.uk

Richmond Court, 94 Botley Road, Park Gate, Southampton, SO31 1BA

project name/address:

Residential Conversion
The Slipway
Rope Walk
Hamble
SO31 4HB

client:

Mr A Loizou

drawing title:

Floor Plans

job number: drawing number: revision:

1799 02 B

drawing scale/size: date: drawn:

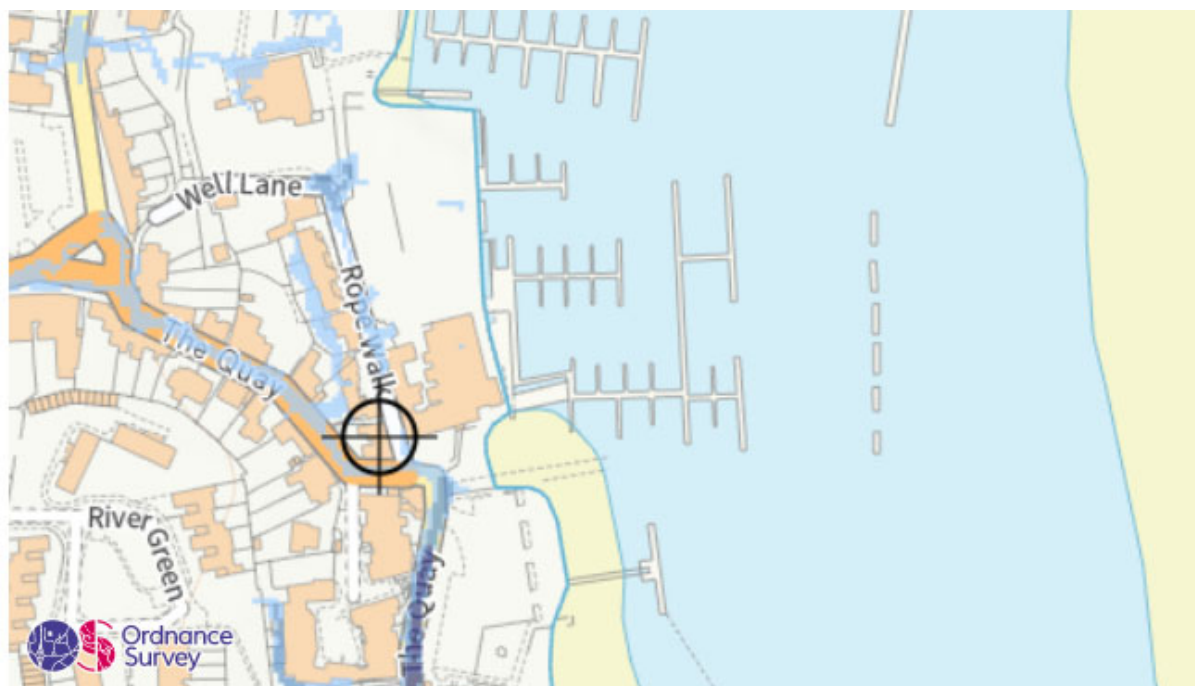
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Site Location

Appendix B

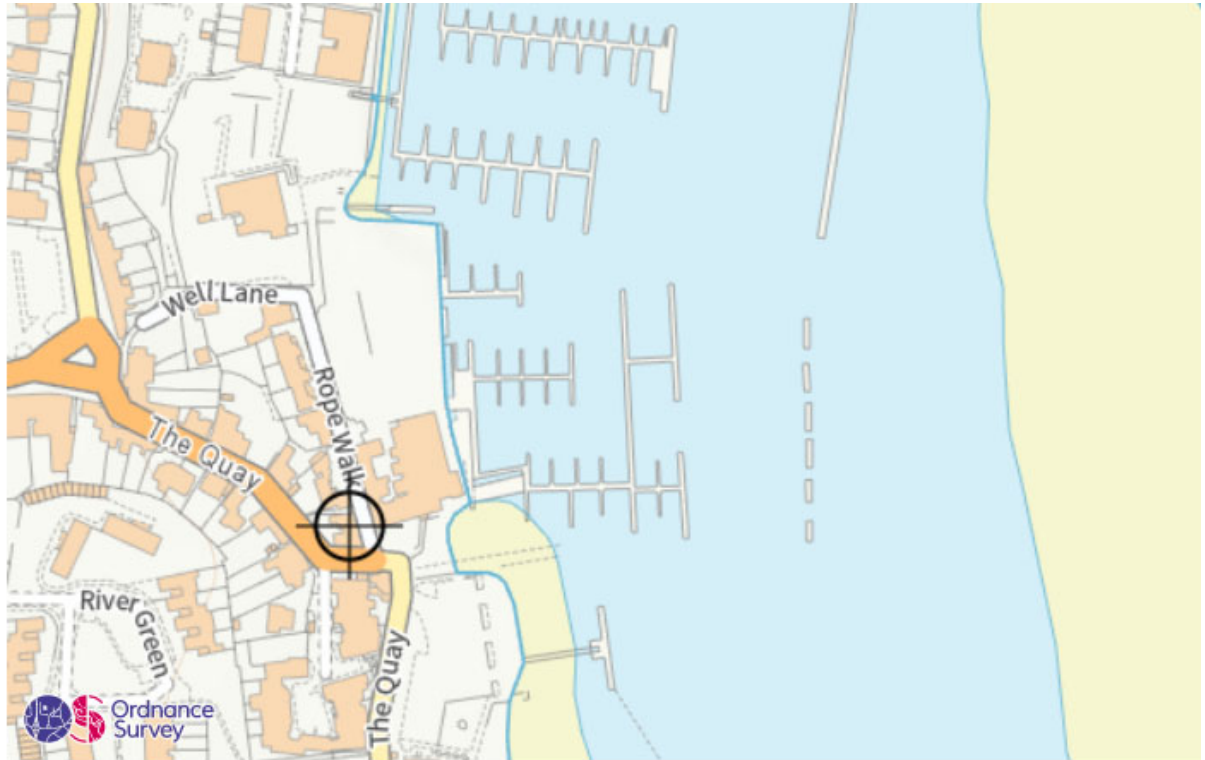




Extent of flooding from surface water

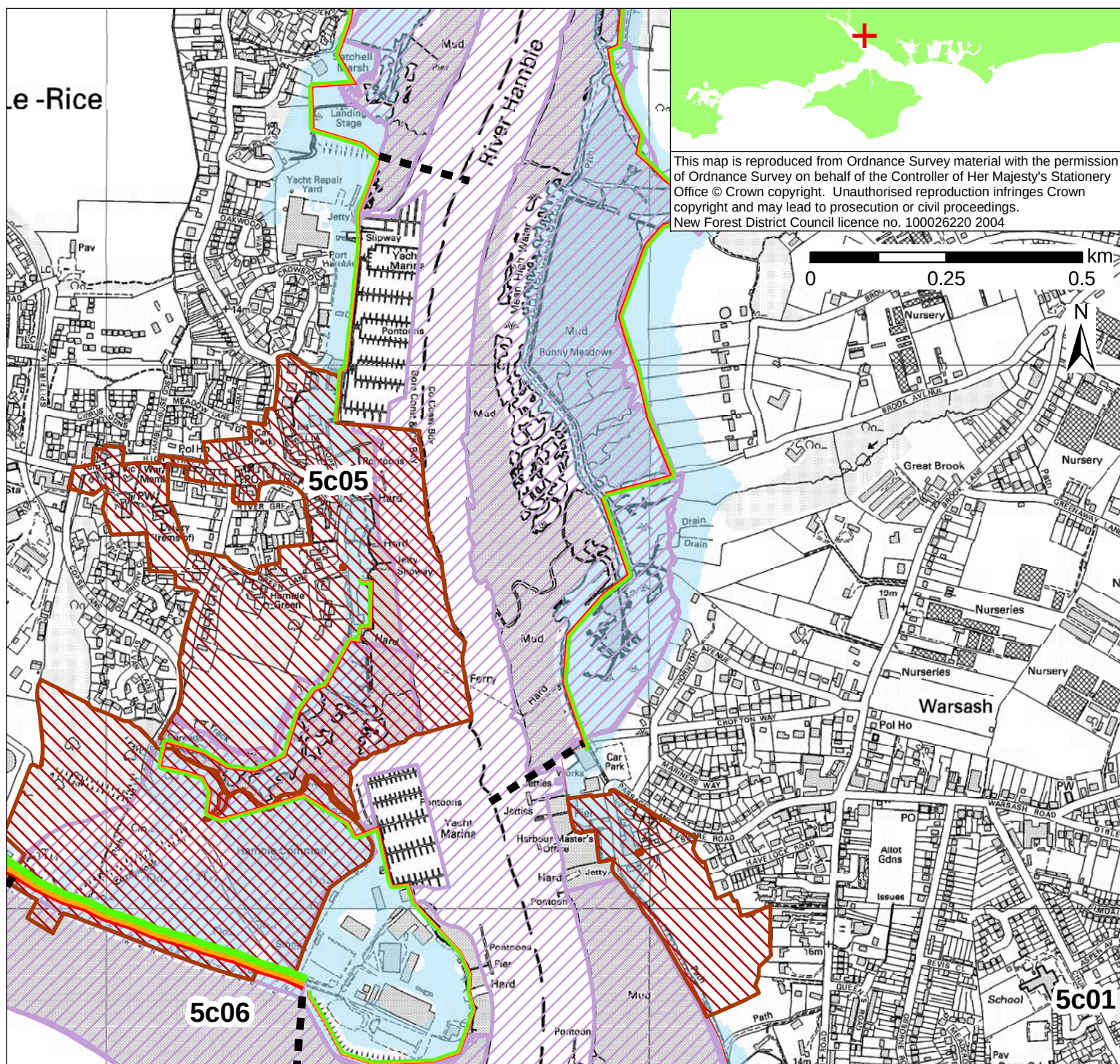
High
 Medium
 Low
 Very low

+
 Location you selected



Extent of flooding from reservoirs

● Maximum extent of flooding
 ⊕ Location you selected

**POLICY**

From Present Day (up to 2025):	Medium-Term (2025 to 2055):	Long-Term (2055 to 2105):
No Active Intervention* (Hold the line at the Quay and Rope Walk)	No Active Intervention* (Hold the line at the Quay and Rope Walk)	No Active Intervention* (Hold the line at the Quay and Rope Walk)
*Requirement for more detailed study (on potential impact of shoreline evolution of Hamble Point to determine longer-term management of this frontage and River Hamble)		

- Indicative erosion zone up to 2025
- Indicative erosion zone up to 2055
- Indicative erosion zone up to 2105
- Policy Unit Boundary
- International / National Designations
- Important Heritage Sites
- 2115 Indicative Floodplain (1 in 200 year) provided from PUSH

Appendix C

CONDITIONS AND LIMITATIONS OF FLOOD RISK ASSESSMENT & DRAINAGE STRATEGIES

October 2020

Aqua Callidus Consulting Ltd is constituted as a limited liability company in accordance with the Companies Act 1989 (with registered number 11390910 and with its registered office at Kintyre House, 70 High Street, Fareham, Hants, PO16 7BB).



1. The report is confidential to the clients stated in the report and has been prepared to their instructions for their own purposes and it is not permitted to disclose this report to other parties (except NHBC, Local Authority, the Client's own Solicitors and Professional Advisers) without the prior consent of Aqua Callidus Consulting Ltd.
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8. Unless specifically stated otherwise in the report, any proposed strategies are in principle and sizings are illustrative only and are to be confirmed or modified as a appropriate at detailed design stage.