

Flood Risk Assessment

Works to Sea Defences

9 Harbourside

Langstone

Havant

October 2024

Introduction

A Flood Risk Assessment is required to accompany a planning application to carry out works to upgrade the resilience of the existing flood defences.

This is no residential element to the works.

The Site

9 Harbourside is a detached property at the southwest corner of Harbourside, Langstone PO9 1TJ, a development of some fifteen houses built around 1990.

The garden fronts onto Langstone Harbour with a frontage 45 metres long.

From a topographical survey,

- The ground level surrounding the house is 3.10m OD

- The ground floor level is 3.30m OD

- First floor level is 6.0m OD

- The top of the existing concrete sea defence varies between 3.90m and 3.95m OD.

- The top of the existing earthworks, the eastern part of the works, is at approx. 3.60m OD.

The Proposed Development

The proposed works involve the replacement of the existing sea defences with a more robust structure which will have considerably more resilience and a longer service life.

The western half of the scheme consists of 4m sheet piles driven into the existing earth bank, and the bank reinforced with imported clay-based material.

The finished level of the piling and earthwork will be 4.0m OD.

The eastern half of the scheme involves the removal and replacement of the existing concrete works in the same positions.

The concrete apron will be slightly reduced in projection.

A row of sheet piling will anchor the toe of the apron.

The top of the new concrete walling will be at 4.0m OD.

Flood Risk Mapping

The Environment Agency flood mapping has been consulted and the plans are included at the end of this assessment.

The risk is from tidal flooding, such as might occur with a adverse combination of spring tides and meteorological conditions.

The property is within Flood Zone 3.

The EA mapping appears to make no allowance for the existing sea defences.

This project will play a part in the upgrading of the defences.

(It is hoped that the residents will work together to produce a comprehensive upgrade to a standard similar to the scheme recently developed by Coastal Partners. This is the first section of the frontage to come forward.)

However, the current 1 in 200 year flood level is predicted at 3.20m OD.

And the 2115 flood level, on the same basis, is 4.30m OD.

Risk Assessment

Considering the theoretical 2115 predicted tidal level of 4.30m OD, without any defences, the ground floor would flood to a depth of 1.0m.

The first floor, at 6.0m, would be well above this flood level.

Surrounding the house, the water would be approx. 1.20m deep.

This is too deep for self-evacuation and it would be necessary to retreat to the first floor to wait for the water to recede as the tide dropped.

It is likely that there will already be sufficient materials upstairs in the property to sustain the occupants safely for the few hours before self-evacuation could take place.

However, the proposed development will reduce the risk to the property and occupants and does not increase the risks in any way.

Existing Drainage

There is no change to loading of the foul sewers.

There is no change to run-off to storm sewers.

Flood water displacement

The works will reduce the risk of flooding through a failure of the sea defences in this section being upgraded.

The changes will have no effect on flooding arriving from elsewhere, for instance via a breach elsewhere in the defences outside this property.

Surface water run-off is unaffected.

Sequential Test

By its nature, a local flood defence to a particular property, this is not a development or type of construction which could be steered towards another lower risk site.

Conclusion

This proposal will not have any adverse effects.

Attached -

Location plan

Current Flood Risk mapping

Flood Zone mapping

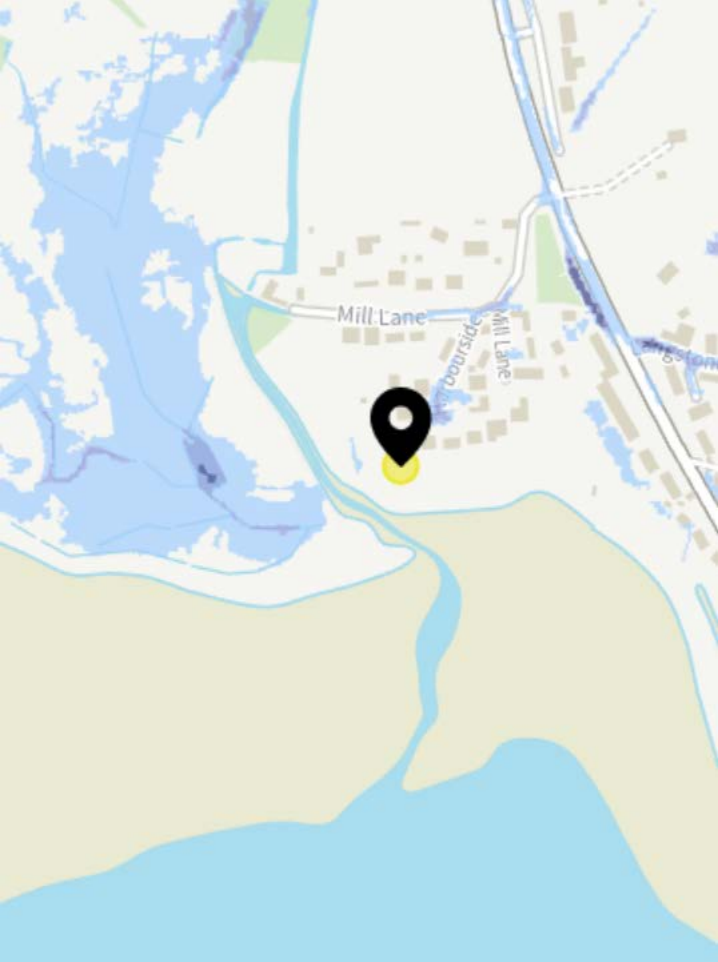
Existing plan

Proposed plan

Proposed section

Topo survey





Flood map for planning

Your reference
Flood Risk Ma

Location (easting/northing)
471532/104822

Created
26 Oct 2024 13:33

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

This means:

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

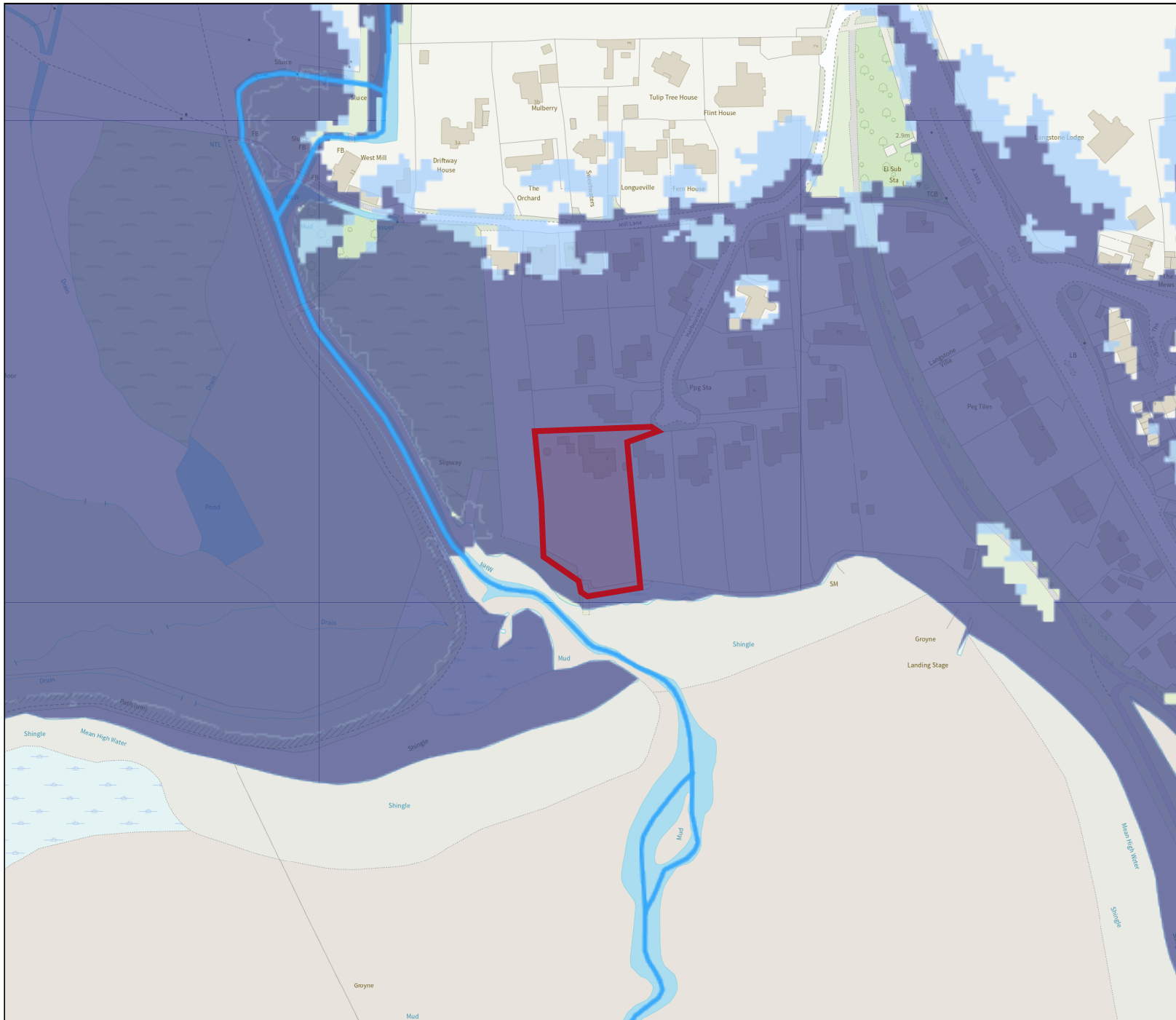
Notes

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

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

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

Use of the address and mapping data is subject to Ordnance Survey public viewing terms under Crown copyright and database rights 2024 OS AC0000807064. <https://flood-map-for-planning.service.gov.uk/os-terms>



Flood map for planning

Your reference
Flood Risk Ma

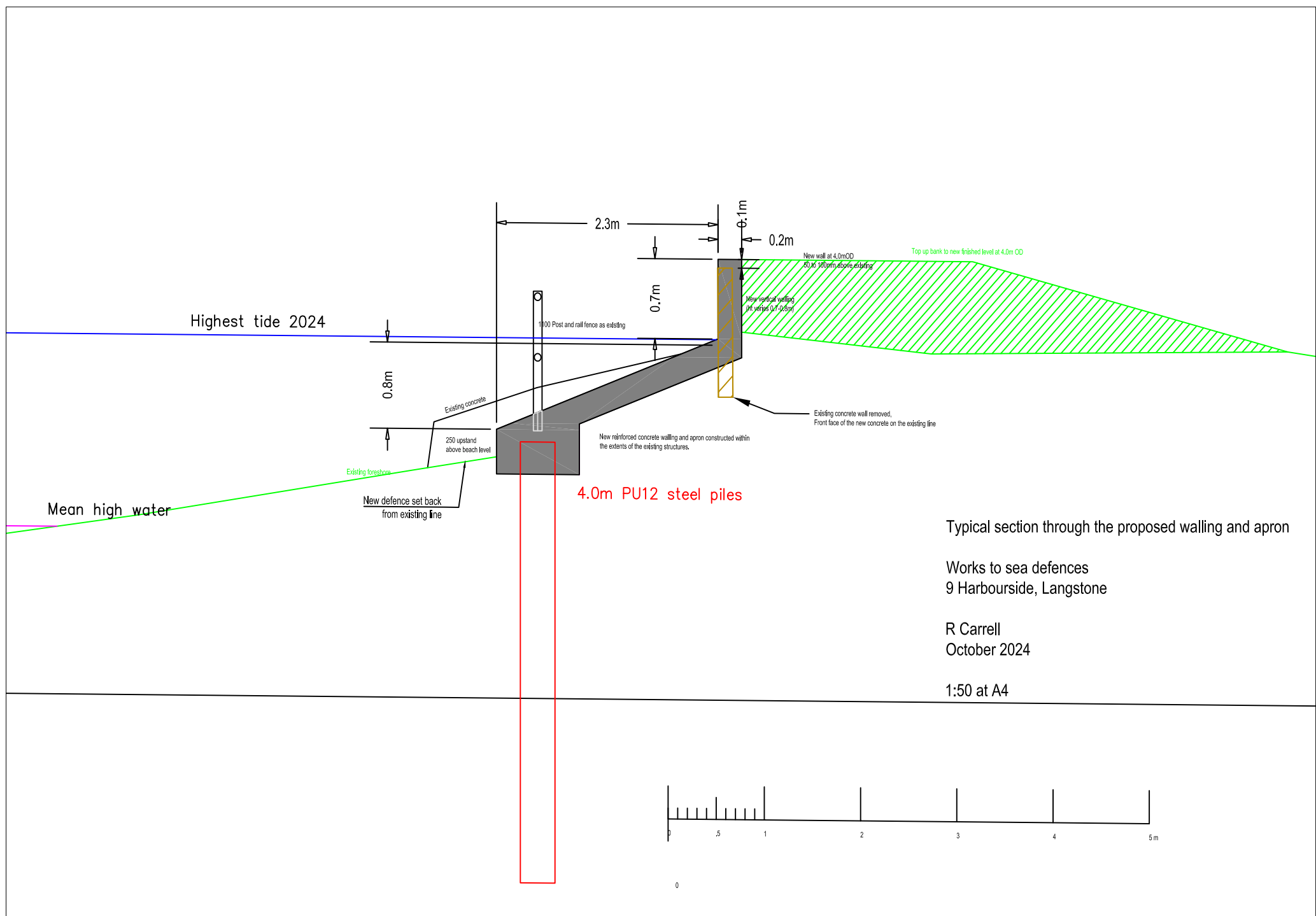
Location (easting/northing)
471532/104822

Scale
1:2500

Created
26 Oct 2024 13:33

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


0 20 40 60m

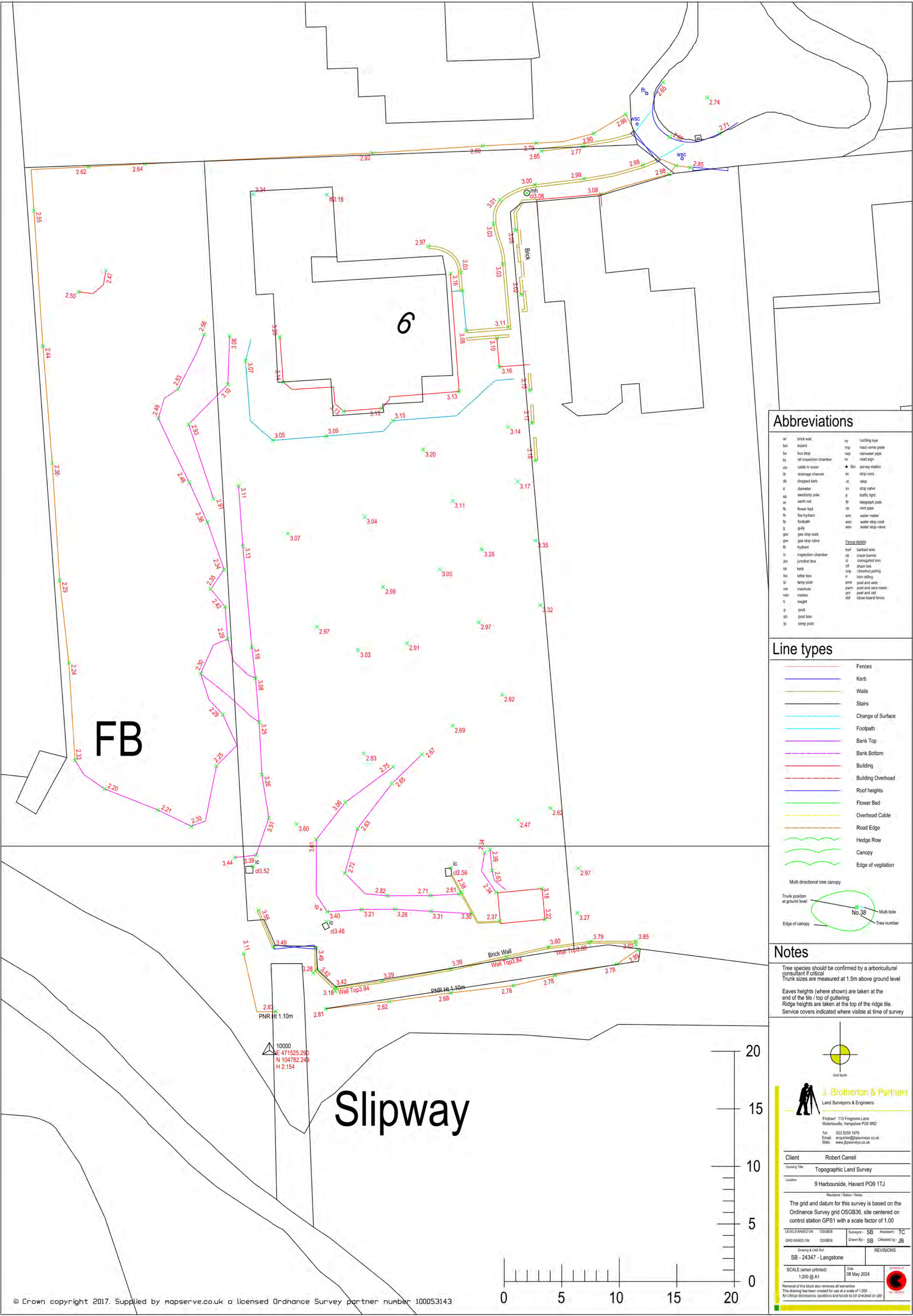


Typical section through the proposed walling and apron

Works to sea defences
9 Harbourside, Langstone

R Carrell
October 2024

1:50 at A4

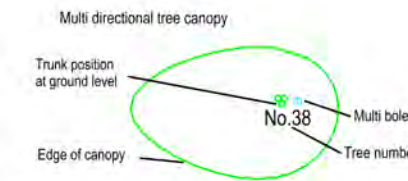


Abbreviations

wl	brick wall	re	rodding eye
bol	island	rrp	road name plate
bs	bus stop	rwp	rainwater pipe
bx	bell inspection chamber	rs	road sign
cu	cable tv cover	stn	survey station
ch	drainage channel	sc	stop cock
dk	dropped kerb	st	stop
d	diameter	sv	stop valve
ep	electricity pole	tl	traffic light
er	earth rod	tp	telegraph pole
fb	flower bed	vp	vent pipe
fh	fire hydrant	wm	water meter
fp	footpath	wsc	water stop cock
g	gully	wsv	water stop valve
gsc	gas stop cock		
gsv	gas stop valve		
h	hydrant		
ic	inspection chamber		
jbx	junction box		
kb	kerb		
lbb	letter box		
lp	lamp post		
mh	manhole		
mkr	marker		
n	height		
p	post		
pb	post box		
lp	lamp post		

Line types

	Fences
	Kerb
	Walls
	Stairs
	Change of Surface
	Footpath
	Bank Top
	Bank Bottom
	Building
	Building Overhead
	Roof heights
	Flower Bed
	Overhead Cable
	Road Edge
	Hedge Row
	Canopy
	Edge of vegetation



Notes

Tree species should be confirmed by an arboricultural consultant if critical.
Trunk sizes are measured at 1.5m above ground level.
Eaves heights (where shown) are taken at the end of the tile / top of guttering.
Ridge heights are taken at the top of the ridge tile.
Service covers indicated where visible at time of survey.

10000
E 471525.290
N 104782.249
H 2.154

Client Robert Carrell

Drawing Title Topographic Land Survey

Location 9 Harbourside, Havant PO9 1TJ

Revisions / Status / Notes

The grid and datum for this survey is based on the Ordnance Survey grid OSGB36, site centered on control station GPS1 with a scale factor of 1.00

LEVELS BASED ON	OSGB36	Surveyed by	SB	Assisted by	TC
GRID BASED ON	OSGB36	Drawn By	SB	Checked by	JB

Drawing & CAD Ref SB - 24347 - Langstone

SCALE (when printed) 1:200 @ A1

Date 08 May 2024

REVISIONS

Removal of this block also removes all warranties
This drawing has been created for use at a scale of 1:200
All critical dimensions, positions and levels to be checked on site