Cowan Consultancy
STRUCTURAL, CIVIL AND BUILDING CONSULTANTS

Construction Environmental Management Plan (CEMP) for the construction of a sea defence to the South of Mill Lane, Havant, PO9 1RX

On Behalf of: **Mr Robert Carrell**

Cowan Consultancy Ltd
3 Turnberry House
4400 Parkway
Whiteley
Fareham
Hampshire
PO15 7FJ

Telephone: 01489 577488
Fax: 01489 579873

www.cowanconsult.co.uk
consultants@cowanconsult.co.uk

Landguard Manor
Landguard Manor Road
Shanklin
Isle of Wight
PO37 7JB

Telephone: 01983 868497
Fax: 01983 865781

www.cowanconsult.co.uk
iow@cowanconsult.co.uk

EG/466661/EG **21 October 2025**

Contents

1.0 Introduction

2.0 Background

3.0 Scope of work and project description

4.0 Working methods

5.0 Source of bund wall fill material

6.0 Ecology

7.0 Summary and conclusions

Appendix 1 Proposals drawing(s)

1.0 Introduction

The Construction Environmental Management Plan (CEMP) will detail how the proposed works, both during and after the reconstruction, will avoid, minimise or mitigate effects on ecology and the environment of the site and its surroundings.

It will do this by explaining why a new sea defence is required and by describing the proposed replacement works. It will demonstrate that the environmental and ecological issues applicable to the site have been considered and show that mitigation measures have been included in the method of reconstruction and that enhancement of the ecology has been included in the final design.

2.0 Background

The works described by this report are located in the south of Mill Lane, to the West of Gulls Way and Harbourside. The works (approximately 150m long) create a new flood defence inland of an existing perimeter bank to ensure that predicted future storm events will not lead to flooding of the property. These proposed works with other works described elsewhere will provide protection to all sides of the property. The existing perimeter bank is no longer suitable for predicted storm flood events and the sea defence structure needs to be replaced. Replacement of the existing sea defence structure is therefore required to maintain the line of the existing sea defence.

3.0 Scope of work and project description

The purpose of the works is to provide an upgraded and reinforced sea defence structure along the approximately 150m long Eastern boundary of the field. The existing perimeter bank was partly raised in 1999 but the project was not completed. Further fill was added in April 2025 raising the bank to 3.500m AOD. However, the existing bank is becoming exposed to increased wave action following the inundation of Southmoor. There is a risk that the bank will fail, leading to the flooding of nearby properties.

The upgraded bank will be formed using mostly imported clay soil to provide a robust mass sea defence bund. At the Southern tip the scheme includes a short length of sheet piling which will connect the sheet piling in the adjoining property, Gulls Way, as foreseen in the Coastal Partners design for Frontage 1B.

Details of the proposed replacement sea defence bund is shown on the drawings appended to this report. The crest level of the new sea wall will be as proposed in the above noted scheme and set at 3.850m AOD. The scheme closely follows the scheme developed by Coastal Partners who have provided the detailed design for the whole of the Mill Lane flood cell. (The drawings also show works on the adjoining property which are not covered by this report). The general area of the works is shown in the extract below:

Proposed works plan showing proposed works to the West of No.9 Harbourside from the Aecom Langstone Flood and
Coastal Erosion Management Scheme report

4.0 Working methods

4.1 Site limits / Site Compound and Storage

This section details the general arrangement for the site compound and working area, the storage of materials, access to the site and the method in which the works will be undertaken.

The site is within the field to the South of Mill Lane extending from the sea defence wall on the Southern boundary up to the Northen boundary where it joins Mill Lane.

The site compound and store will be just off of Mill Lane, using the hardstanding previously created for the works carried out in April 2025.

Materials delivered to site will comprise the sheet piles and clean imported clay soil (this will be certified clean from the supplier via WAC certificate).

Measures to avoid pollution incidents during construction in accordance with current best practice guidelines including the provision of spill kits and the appropriate storage of materials and machinery away from the watercourse. No storage
of materials will be allowed adjacent to the Langstone Harbour SAC, SPA, SSSI and Ramsar site.

Fuel for the machinery will be stored in a bunded area within the works compound / hardstanding area adjacent to Mill Lane at some 50m distance from Langstone Harbour, and all refuelling will take place in this area. Machinery to be parked in this area outside working hours to reduce the risk from any leakage while unattended.

In the unlikely event that any soil is contaminated by oil it will be carefully excavated and removed from site for appropriate disposal.

To further reduce the possibility of pollution, the contractor should use plant nappies wherever they are appropriate. These can capture contaminants from static equipment such as generators and compressors and provide a safe location for refuelling small plant.

4.2 Site Access

The plant used in the construction will be a 16T excavator with Movax side grip hammer, to install sheet piles and form the bund wall, and a 5T dumper to move material as required. Works vehicular access will by via the site compound off of Mill Lane. At the start and end of the working days, and as dictated by tides, the dumper will track back to the site compound. Works will be undertaken from land side of the new bund wall and no machinery to operate on the foreshore.

4.3 Schedule of works

The following is a schedule of proposed works for the installation of the new sea defence bund wall:

- Set up site welfare and site toilet in compound
- All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container. I.e. Diesel to be stored in the site compound in a bunded tank with spill kit. All refuelling should be undertaken in the site compound only.

<u>Bund wall construction and sheet piling</u>

- To provide pollution control to ensure that no pollution (such as debris from dust or surface run off, as well as chemicals or fuel) is able to enter the estuary, a fibre matting barrier (Frog Environmental FlocMat or similar approved) along the seaward edge of the works will be installed prior to any works at the Southern tip of the works.
- Off load 4m sheet piles with 16 ton excavator from Mill Lane, sheets to be delivered on small rigid trucks due to site access.
- Store sheet piles in site compound ready for use.
- Install VL603 4m sheet piles from the shore side working platform with a 16 ton excavator and a Movax side grip hammer.
- Use dumper to move clean imported soil to bund construction position. Use 14T excavator to shape the soil into the bund wall. Using line and level to ensure correct crest levels and side slope profiles are formed.

Earthworks

- Install filter drain from CH0.0 to CH145.00. Excavate 450mm wide trench and place 150mm land drain in non woven geotextile. 80/40 reject stone fill to 450mm deep.
- Excavate to strip top soil from chainage 0 to 145 average width 7.6m not exceeding 300mm.
- Supply and lay non woven multitrack 1000 geotextile to formation. Cart top soil to temporary bund and seal.
- Import clay to form section profiles 1 to 8. Load and cart bunded top soil and spread over clay bund.
- All personnel and supervisor to be adequately qualified and carry the appropriate cscs card.
- Duration of job to be set by agreed programs
- Labour levels to be adequate to achieve given target dates

Working Hours:

- Working Hours will be 08:00hrs – 16.30hrs Monday to Friday,

Work Sequencing:

1. Pre-Start Documentation Assessment
2. Pre-Start Meeting
3. Provision of Competency Proof
4. Induction – All Personnel are to report to the site manager for an Induction
5. RAMS Briefing – Key aspects of all works to be explained to all workers by Matt Smith prior to works starting All operatives and subcontractors are to read/understand this and sign acknowledgement of receipt.
6. All works are to be carried out in accordance with the safe system of work established within this document. Where risks arise that are not covered, works must cease, and a point of work risk assessment must be completed by the supervisor or contracts managers.
7. All personnel to be provided with correct ppe and training.
8. Sufficient supervision is provided to ensure job is completed safely.
9. All work areas are to be kept clear and clean Work area will be tided daily
10. All tools to be kept and maintained to a suitable standard.
11. All received Materials will be protected and stored appropriately
12. Manual Handling activities will include localized shifting etc. of drainage pipes etc safe lifting techniques will be employed .

Specific details to note:

- Smoking is not permitted and this includes the use of electronic/vape style cigarettes.
- The use of iPods, MP3 players, earbuds/headphones and radios etc. is forbidden at any time whilst undertaking works. They may only be used during specified break periods, in designated safe areas.
- All minimum site protective equipment to be worn at all times; or as specified in the risk assessment and method statement.
  The safe operating capacity of any machine must not be exceeded, where in doubt – seek the advice of the site management.
- All vehicles/deliveries to access site via Mill Lane
- Deliveries will be coordinated by the site manager

5.0 Source of bund wall fill material

Clean clay-based subsoil, derived from construction excavations in virgin ground, will be placed on the bank. This material is subject to availability and at this stage it is not possible to know where it will be sourced from, but the following procedure will be followed

- 1. Soil will only be obtained direct from individual construction sites.
- 2. The groundwork contractor will visit the extraction site and confirm that the soil is clean and suitable.
- 3. The imported soil will be transported by a selected licensed waste carrier, under the control of the groundwork contractor, who will assess the material and review site soil reports to confirm that soil is clean and no invasive species are present on the source site.
- 4. No topsoil material will be imported, reducing the risk of importing invasive species.
- 5. Any material derived from made ground will be rejected.
- 6. No soil will be accepted from waste transfer stations where soil might be expected to derive from multiple sites.
- 7. Record keeping shall include the transfer dockets so that fill material is traceable and suitable WAC test certificate is obtained as required.

6.0 Ecology

An Ecological Appraisal is to be undertaken for the site as its immediate surrounds may support nesting birds, foraging waterbirds, reptiles and small mammals. Report findings will need to be considered once produced.

6.1 Designated Sites

A desk study confirmed that the site coincides with the following statutory designated sites;
• Chichester and Langstone Harbours are Special Protection Area (SPA) and Special Areas of Conservation (SACs) which is designated for its breeding and wintering bird populations.
• Langstone Harbour Site of Special Scientific Interest (SSSI), the Harbour is host to a diverse range of habitats, including intertidal mudflats, Seagrass meadows, and Atlantic saltmarsh. These habitats provide feeding grounds and refuge for internationally important assemblages of wildfowl and wading birds, perfect conditions for a Bass nursery, and even a haul out site for a small colony of Harbour Seals.

6.2 Threats to Ecological Receptors

The potential impacts of the construction works on ecological receptors are listed below:
• The killing or injury of animals during site clearance operations
• The loss of habitats that animals use for feeding, refuge or breeding
• Disturbance to foraging or roosting waterbirds during winter
• Pollution incidents that may impact on coastal habitats

Some of the above impacts could be detrimental to the interest features of the designated sites.

6.3 Avoidance and Mitigation Measures

The following working methods are proposed to avoid, reduce or mitigate the potential impacts on ecological receptors. Any recommendations within the Arboriculture Development Statement should also be followed.

6.4 Timing of works

All works will be undertaken between April and September to avoid any impacts on wintering or migratory wildfowl and waders and the site clearance operations will be timed to avoid the reptile hibernation period, which is typically between November and March, inclusive. The works will be restricted to daylight hours to avoid the use of external lighting to prevent unnecessary disturbance to nocturnal and crepuscular species such as bats.

Any changes to the proposed work schedule will be agreed with the Local Planning Authority prior to commencement.

6.5 Project Set Up

All personnel involved in the construction works will be briefed on the ecological mitigation strategy and relevant wildlife legislation. Zones for the piling of soil, storage of materials and machinery associated with the project will be clearly defined. Fuel, oil and other chemicals will be stored in appropriate containers that are impervious to the material being stored. Leaking and empty containers will be removed from the site immediately.

6.6 Working Methods

Prior to the engineering works beginning, all vegetation will be removed using hand tools under the supervision of an ecologist, who will check for the presence of nesting birds, small mammals, reptiles and invertebrates. If Schedule 1 birds are found nesting, then works will be delayed until the young have dispersed.

The vegetation will be cut back to around 5 cm using hand tools and the site left overnight for any animals using crevices in the soil to move away from the area of works. The arisings will be removed from the site to prevent animals from using them as a refuge. Any animals that are found during the works will be moved to a safe location away from the area of works. A suitable recipient area is scrub further along the coast to the south. Both of these areas provide corridors to suitable habitat off site.

6.7 Control of pollution to adjacent habitats

Due to the nature of the work, pollution incidents are extremely unlikely. Small amounts of dust may be emitted during the piling exercise. There are no statutory or guidance limits for the deposition of dust on vegetation and ecosystems although draft guidance from the Highways Agency suggests that some sensitive species appear to be affected by levels above 1,000 mg/m2/day. Dust emitted through construction processes will be kept to a minimum by a number of methods, including: using water as a dust suppressant during dry weather and removing and debris/loose material before construction begins.

Machinery and materials for construction will be stored as far away from aquatic habitats as possible and no machinery will be refuelled on site, the storage area as noted earlier will be used for these items.

The construction methodology will ensure that there will be no pollution of the inter-tidal habitats from the deposition of silt/dust or other pollutants.

6.8 Roles and responsibilities

Ecology Clerk of Works (ECoW)

Prior to the start of site clearance an ECoW will be appointed. The ECoW will take responsibility for advising the relevant persons about ecological issues, and ensuring the measures specified within this document are implemented correctly and in line with best practice. The ECoW will also be responsible for planning and reacting to incidents as they occur. ECoW responsibilities include:

• Thoroughly understanding the ecological issues and best practice methods relevant to the project;

• Fulfilling the requirement of this CEMP.

• Advising on the location of sensitive ecological features and the type of protection or mitigation required.

• Supervising and monitoring the implementation and maintenance of protective or mitigation measures to ensure legal compliance and safeguard sensitive ecological receptors.

• Liaising with and reporting to the construction project manager, site personnel and contractors and the Havant Borough Council about ecological issues.

• Educating relevant personnel (principally site staff and contractors) about ecologically sensitive features, legal obligations, best practice, and procedures.

• Ensuring that this CEMP is updated/ revised according to new information.

Contractors

Key to the successful delivery of the measures set out in this CEMP will be the collaboration of all project personnel, especially those involved in site clearance and construction activities. The CEMP will be distributed to key representatives of construction personnel, ideally as part of site induction, including the project management team and all appointed contractors and sub-contractors. The contractors' responsibilities will include the following:
• Adhering to the relevant provisions made within this Plan and complying with the advice of the ECoW.

• Ensuring that protective measures described are maintained for the required duration and understood by all site personnel.

• Contacting the ECoW regarding any uncertainties or activities that may impact on ecological features.

7.0 Summary and Conclusions

Despite the numerous statutory designated sites that are coincident with the area of works, the Ecological Appraisal has concluded that the works will have no significant impact on designated sites, that there are no Habitats of Principal Importance and that the adjacent habitats will experience only temporary disturbance during the works.

The pre-works ecological survey will check for nesting birds and arrange for relocation of stag beetles, small mammals and reptiles if found. If there are nesting or protected birds, the works will be deferred until they have gone.

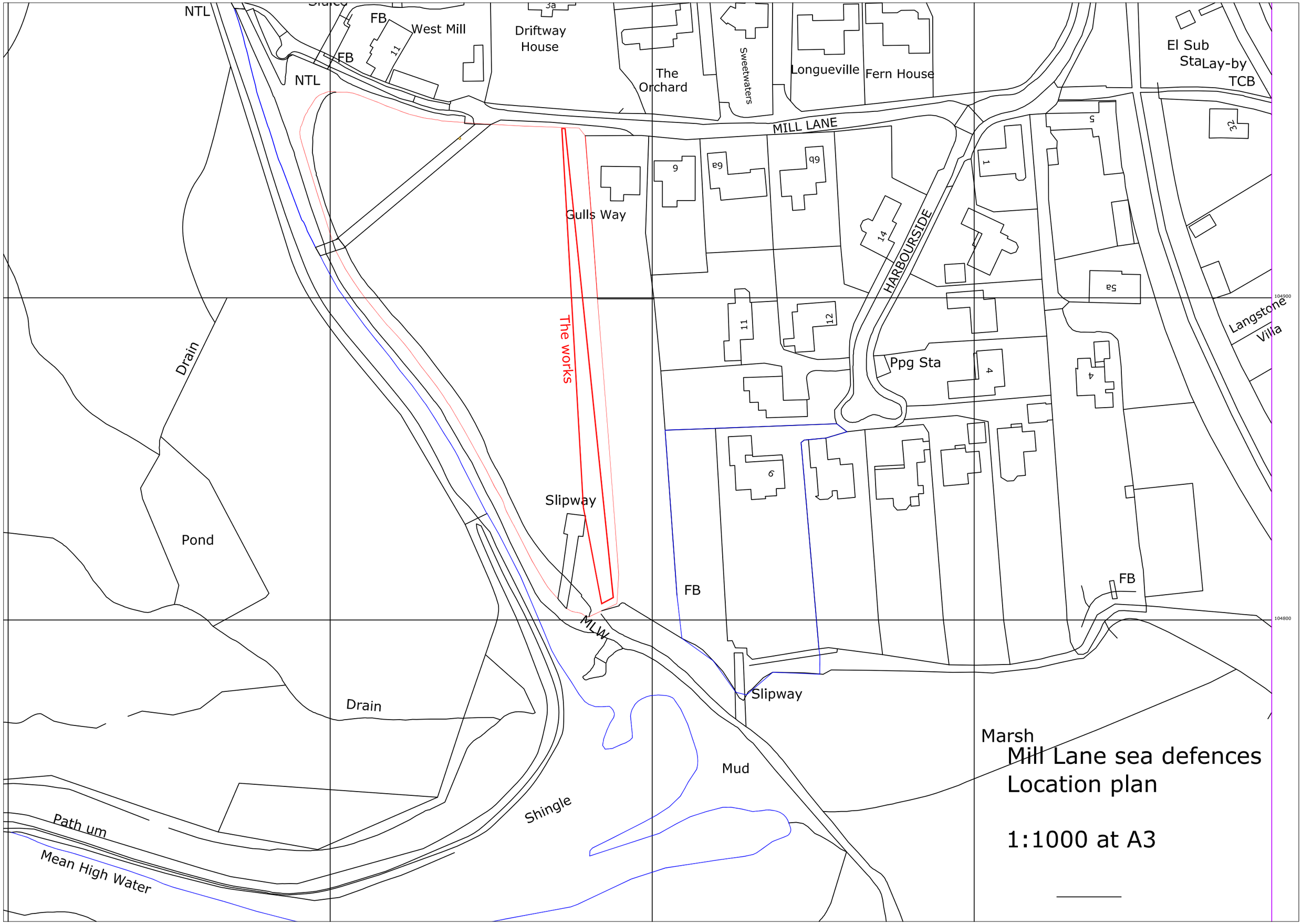
Overall the scheme will enhance the coastal protection to nearby properties and provide beneficial effect to the local wildlife, whilst causing only temporary disturbance during construction.

Yours sincerely

ELVIN GOMERY B.Eng (Hons) MICE
For and on behalf of Cowan Consultancy Ltd.

DAVID BUTTON BSc (Hons) CEng

Appendix 1



Mill Lane sea defences
Location plan

1:1000 at A3

The ramp in Mill Lane in the Coastal Partners scheme is not included in the current project

The Orchard

MILL LANE

Gateway previously widened to double width for access to 1998 flood protection scheme.

Gulls Way

6

6a

6b

11

9

EXISTING TREE SURVEY:

- Tree Canopy
- Trees of A (high) grading
- Trees of B (moderate) grading
- Trees of C (low) grading
- Trees of U (fell) grading
- Root protection area (RPA)

FOR TREE SURVEY DETAILS REFER TO DRAWINGS 1241.BJH.01.02-SHEETS 1-4

TREE CLEARANCE:

- Trees that will be unaffected by the development proposals.
- Trees that may be retained with mitigating measures applied - Arboricultural expert supervised 'hand dig' trenching works and root severance exercise.
- Trees that would not survive the development works and will be removed.

0 12.5 25 m

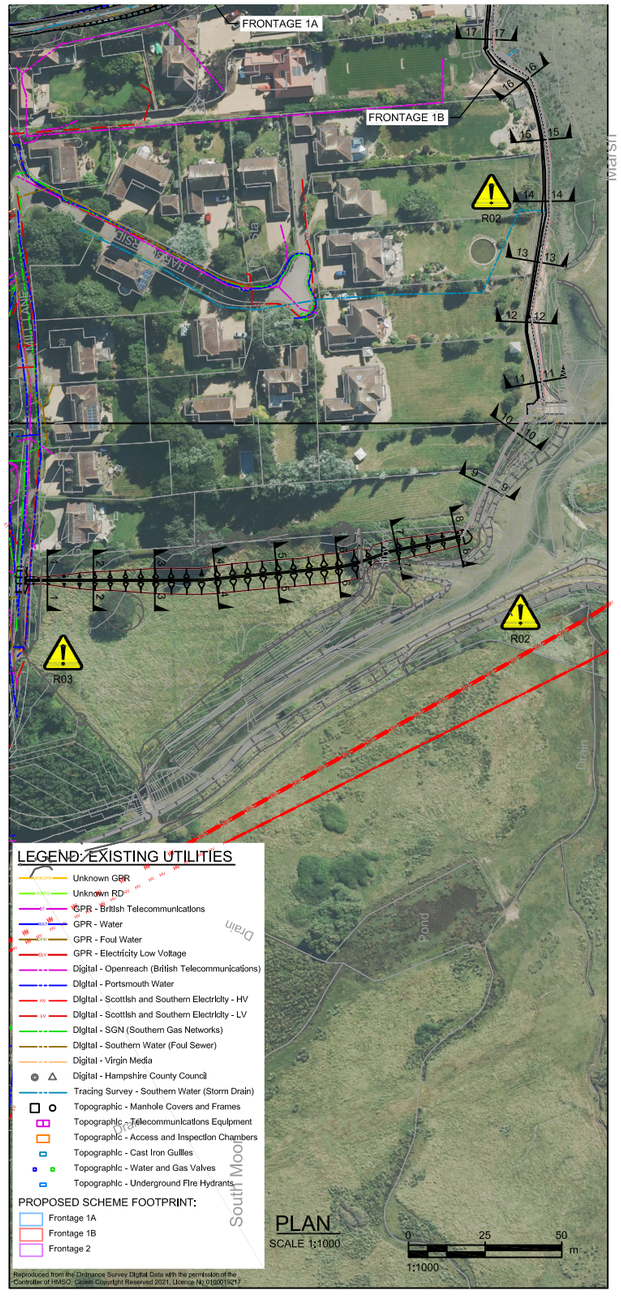
Existing outfall

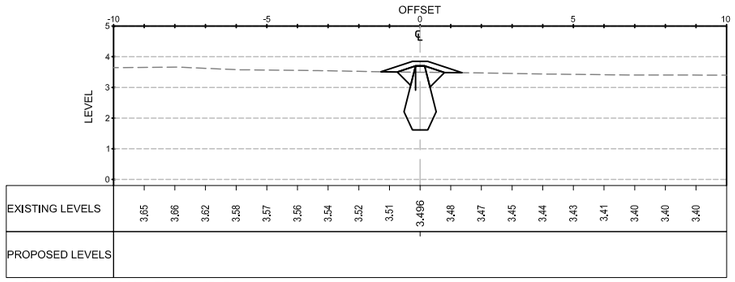
MLW

Mill Lane Flood Defences
Block plan proposed

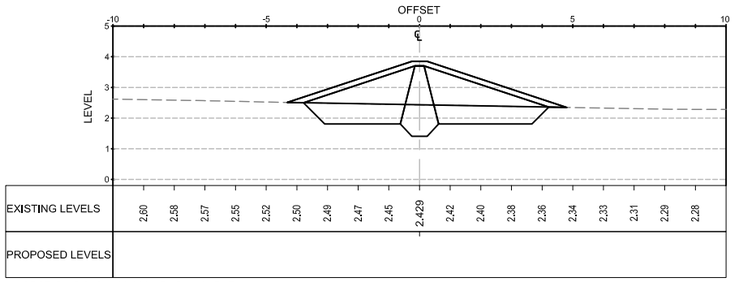
For detailed of earthworks refer to sections and elevation drawings.
See also the Coastal Partners GA drawings

Revised October 2025
Scale 1:500 at A3

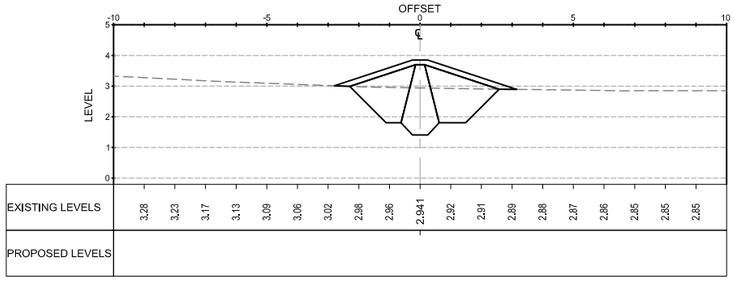




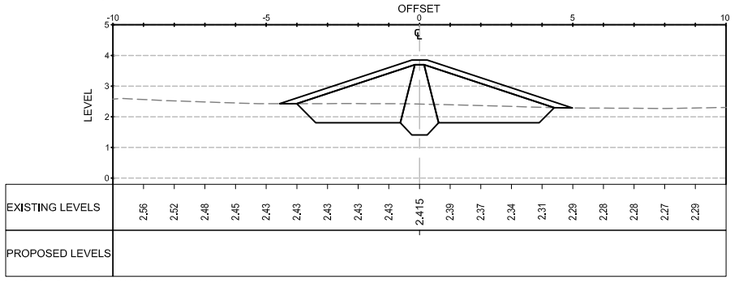
SECTION 1-1, CH: 0,000 - EMBANKMENT
SCALE: H 1:100,V 1:100



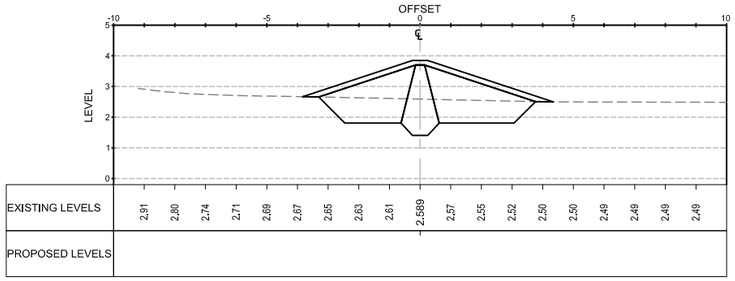
SECTION 5-5, CH: 80,000 - EMBANKMENT
SCALE: H 1:100,V 1:100



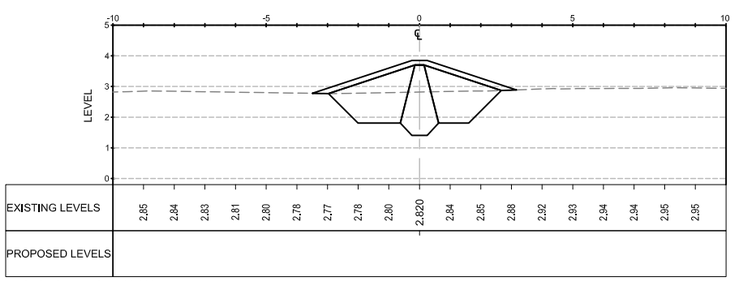
SECTION 2-2, CH: 20,000 - EMBANKMENT
SCALE: H 1:100,V 1:100



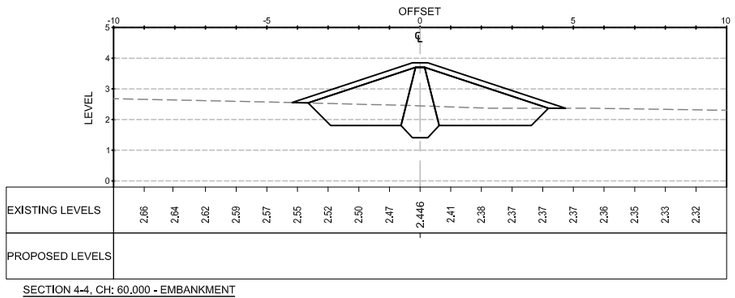
SECTION 6-6, CH: 100,000 - EMBANKMENT
SCALE: H 1:100,V 1:100



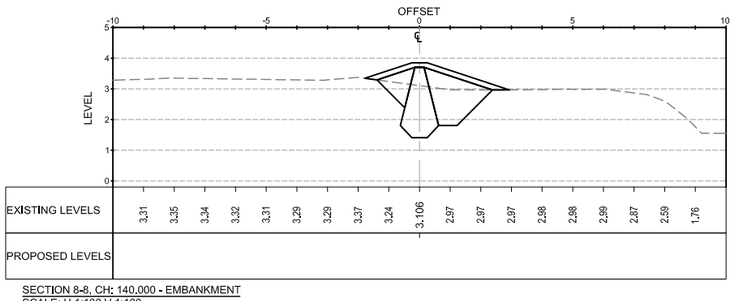
SECTION 3-3, CH: 40,000 - EMBANKMENT
SCALE: H 1:100,V 1:100



SECTION 7-7, CH: 120,000 - EMBANKMENT
SCALE: H 1:100,V 1:100



SECTION 4-4, CH: 60,000 - EMBANKMENT
SCALE: H 1:100,V 1:100

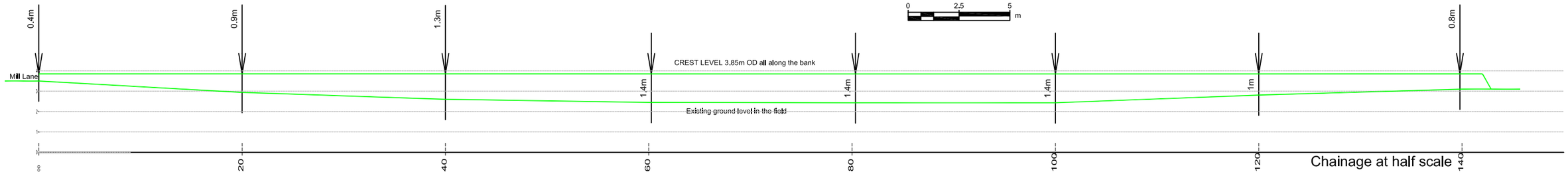


SECTION 8-8, CH: 140,000 - EMBANKMENT
SCALE: H 1:100,V 1:100

Mill Lane, Flood defence scheme

SECTIONS FRONTAGE 1B

0 2,5 5 m



ELEVATION VIEW OF EARTH BANK, Viewed from the West showing heights above existing ground level