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Appendix N – LVIA

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DRAFT

Landscape and Visual Impact Assessment

Langstone Flood and Costal Erosion Risk Management Scheme

Document reference: LANG-ACM-LS-ZZ-RP-LA-000115

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Aecom Ref. No.	LANG-ACM-LS-ZZ-RP-LA-000115
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Revision A	For Planning	NW	JS	JS	05/02/25

Acronyms and Abbreviations

AONB	**Area of Outstanding Natural Beauty (recently renamed National Landscapes)**
CEMP	**Construction Environment Management Plan**
LPA	**Local Planning Authority**
EIA	**Environmental Impact Assessment**
GLVIA3	**Guidelines for Landscape and Visual Impact Assessment**
LVIA	**Landscape and Visual Impact Assessment**
NPPF	**National Planning Policy Framework**
PRoW	**Public Right of Way**
OS	**Ordnance Survey**
SCI	**Statement of Community Involvement**
SSSI	**Site of Special Scientific Interest**
DEFRA	**Department for Environment, Food and Rural Affairs**
GIS	**Geographic Information System**
TPO	**Tree Preservation Order**

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INTRODUCTION

01

Chichester Harbour looking towards Langstone Village

1. INTRODUCTION

Background

AECOM has been commissioned by Havant Borough Council and the Flood Risk Management Authority (the Applicant) to prepare a Landscape and Visual Impact Assessment (LVIA) of land near Langstone Village, ('the Site') in respect of the following 'Langstone Flood and Coastal Erosion Risk Management Scheme':

The scheme design has been split into 5 frontage locations:

- Frontage 1A: Billy Line North. The flood defence comprises of a raised earth embankment and follows the line of the existing Billy Line cycleway (A National Cycle Route 2 cycleway). The existing cycle path is to be upgraded to a wider 3m cycle path which sits on top of the flood embankment.
- Frontage 2: Billy Line South. The design for Frontage 2 consists of a of a sheet-piled wall. Raised earth embankments are included where the defence alignment needs to cross existing utility pipes. The existing cycle path is to be upgraded to a new 3m wide cycle path which sits adjacent to the sheet-piled wall. Frontage 2 ties in with Frontages 1A and the existing higher levels on the A3023 road.
- Frontage 3: A3023 Road to 9 Coastguard Cottages (the Look Out). Frontage 3 consists of a continuous flood defence that largely comprises of 4 flood defence structures. These structures include the A3023 flood wall, Ship Inn car park raised earth bund, Ship Inn flood wall and Ship Inn Annex flood wall. A flood gate is also to be provided between the Ship Inn and Ship Inn Annex flood walls.
- Frontage 4; The Look Out to No. 24 Langstone High Street (the Winklemarket). Frontage 4 consists of new reinforced concrete walls in front of the existing garden walls that run along the frontage. The existing footpath is to be upgraded to a new 1.5m wide footpath through the construction of a new quay wall. 2 No. of gates (the Ship Inn annex, the Green Cottage) and 1 No. of demountable flood defences are provided to ensure robust continuity of the defence.
- Frontage 5: Langstone High Street to the field north of Royal Oak. Frontage 5 consists of a continuous flood defence that largely comprises of 5 structures. These structures include the High Street flood gates, the Royal Oak flood wall, the Allotment flood wall, the Footpath flood wall that runs west of the Mill Pond, and an earth embankment in the field north of Royal Oak. Demountable flood defences are provided between the section transitions.

The EIA Screening and Scoping Response from Havant Borough Council dated 31/03/21 and from the MNO dated 20/05/2021 confirmed that the Proposed Development is an EIA development.

Landscape effects relate to changes to the landscape as a resource, including physical changes to the fabric, character or individual elements of the landscape or seascape, including its perceptual qualities, due to the Proposed Development.

Visual effects relate to changes to existing views of identified visual receptors ('people'), from the loss or addition of features within their view, due to the Proposed Development.

The LVIA has been undertaken in accordance with the Guidelines for Landscape and Visual Impact Assessment, Third Edition, 2013 (GLVIA 3) (Ref 1) and by Chartered Landscape Architects with extensive experience of LVIA.

The LVIA assesses the Site at construction and at year 15 of operation (summer and winter).

This report should be read in combination with the LVIA Annex plans, photographs and photomontages.



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Langstone Flood and Coastal Erosion Risk Management Scheme

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LEGEND
Core Scheme
1km Buffer

NOTES
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ISSUE PURPOSE
FOR INFORMATION

PROJECT NUMBER
60656877

FIGURE TITLE
Site Location Plan

FIGURE NUMBER
Figure 1

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THE SITE

02

Langstone Bridge

2. THE SITE

The Existing Site

With reference to Figure 1: Site Context, the Site is located within Hampshire within the southeast of England. Langstone is a village within the borough of Havant and connects Hayling Island to the mainland. The site consists of Langstone Harbour with Frontages 1A and 2 adjacent to Langstone Harbour and Frontages 3, 4 & 5 adjacent to Chichester Harbour which is part of the Chichester Harbour AONB (recently renamed National Landscape).

The site is urban (Langstone village), urban fringe and rural coastline. The land is low lying and predominately flat. The built environment is defined by various levels of residential development. Adjacent to the harbour fringe is the historic core, which served as a coastal port that serviced the agricultural hinterland. Today this serves recreational water sports. To the east is the historic building of Wade Court and parkland. This is surrounded by agricultural land. Coastal paths skirt the harbour edge. To the west the landscape meanders through salt marsh and garden boundary edge.

Further details outlining the basis of the design can be found in;

- Exploration of landscape enhancement measures were explored within the Landscape Strategy Document - Annex B and within the ;
- Landscape drawings in Annex C.

On going consultation has been carried out with the stakeholders and all correspondence has been documentated with the Consultation ES chapter (Chapter 5) and the Statement of Community Involvement (SCI).

LVIA Study Area

With reference to GLVIA 3, the extent of the study area is required to be proportionate to the Proposed Development. The purpose of the study area is to determine the extent of the landscape and people's views which the Proposed Development is likely to impact.

The study area has been determined through a combination of desk-based review, the generation of Zone's of Theoretical Visibility (ZTV) and fieldwork, to verify the desk-based reviews and establish representative views towards the Site.

The 1km study area is considered proportionate to the Proposed Development given the scale/nature of the works and the Proposed Development. Whilst the Proposed Development may be perceived beyond the study area, it is considered that due to the combination of distance and intervening landform and vegetation, there will be no significant landscape or visual effects beyond the study area.

The following baseline section sets out the relevant landscape features and representative views across the study area.



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LEGEND

Proposed Model Footprint

- Frontage 1A
- Frontage 2
- Frontage 3
- Frontage 4
- Frontage 5

NOTES

Basemapping and map is based on the topographical survey data located in AutoCAD drawing number: LANG-ACM-ZZ-ZZ-DR-ZZ-000004.
GENERAL NOTES
1. THIS DOCUMENT IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
2. DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
3. ALL DIMENSIONS IN MILLIMETRES, ALL CHAINAGES, LEVELS AND COORDINATES ARE IN METRES, UNLESS DEFINED OTHERWISE.
4. DEFENCE LENGTH/EXTENT SHOWN ARE APPROXIMATE. THE EXACT EXTENT OF THE TYPICAL CROSS SECTION IS TO BE CONFIRMED ON SITE WITH THE SUPERVISOR.
5. EXISTING PATH LEVELS VARIES ALONG DEFENCE LENGTH, AND BEACH LEVEL VARY SPATIALLY AND WITH TIME.
6. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRM (LANG-ACM-ZZ-ZZ-RK-ZZ-000001) FOR ANY IDENTIFIED POTENTIAL RISKS.

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FIGURE TITLE

General Arrangement

FIGURE NUMBER

Figure 2

Planning Policy and Landscape Designation

A framework of international, national and local legislation/planning policy guidance exists to protect and conserve the landscape. Table A below outlines the relevant local planning policy documents applicable to the study area.

Table A: Legislation, regulatory and policy framework for landscape and visual

Scale	Legislation/regulatory	Summary of requirements/relevant policies
National	The Wildlife and Countryside Act 1981[1]	This act gives protection to native species, controls the release of non-native species, enhances the protection of Sites of Special Scientific Interest (SSSI) and builds upon the rights of way rules in the National Parks and Access to the Countryside Act 1949. This act states that: *'References to the conservation of the natural beauty of any land shall be construed as including references to the conservation of its flora, fauna and geographical and physiographical features'*
	The Hedgerow Regulations 1997[2]	The Act was created to protect hedgerows, in particular those in the countryside aged 30 years or older.
	National Planning Policy Framework (NPPF), 2025.[3]	The National Planning Policy Framework sets out the Government's planning policies for England and how these should be applied. Relevant policies include: The report sets out overarching objectives for achieving an environmental objective paragraph 8c states: *"to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution,and mitigating and adapting to climate change, including moving to a low carbon economy-."* In regards open space and recreation, paragraph 98 states: *Access to a network of high quality open spaces and opportunities for sport and physical activity is important for the health and well-being of communities, and can deliver wider benefits for nature and support efforts to address climate change. Planning policies should be based on robust and up-to-date assessments of the need for open space, sport and recreation facilities (including quantitative or qualitative deficits or surpluses) and opportunities for new provision. Information gained from the assessments should be used to determine what open space, sport and recreational provision is needed, which plans should then seek to accommodate.*
		Paragraph 126 states: "*The creation of high quality, beautiful and sustainable buildings and places is fundamental to what the planning and development process should achieve. Good design is a key aspect of sustainable development, creates better places in which to live and work and helps make development acceptable to communities. Being clear about design expectations, and how these will be tested, is essential for achieving this. So too is effective engagement between applicants, communities, local planning authorities and other interests throughout the process.*" Paragraph 130 states: "Planning policies and decisions should ensure that developments: *a) will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;* *b) are visually attractive as a result of good architecture, layout and appropriate and effective landscaping;* *c) are sympathetic to local character and history, including the surrounding built environment and landscape setting, while not preventing or discouraging appropriate innovation or change (such as increased densities);* *d) establish or maintain a strong sense of place, using the arrangement of streets, spaces, building types and materials to create attractive, welcoming and distinctive places to live, work and visit;* *e) optimise the potential of the site to accommodate and sustain an appropriate amount and mix of development (including green and other public space) and support local facilities and transport networks; and* *f) create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience."* Consideration within the report is given to areas of coastal change. Paragraph 172 states: *"Development in a Coastal Change Management Area will be appropriate only where it is demonstrated that:* *a) it will be safe over its planned lifetime and not have an unacceptable impact on coastal change;* *b) the character of the coast including designations is not compromised;* *c) the development provides wider sustainability benefits; and* *d) the development does not hinder the creation and maintenance of a continuous signed and managed route around the coast"*

1 Available on https://www.legislation.gov.uk/ukpga/1981/69 accessed on 25/10/23
2 Available at https://jncc.gov.uk/our-work/wildlife-countryside-act/ accessed on 25/10/23
3 Available at https://www.gov.uk/government/publications/national-planning-policy-framework--2 accessed on 07/02/25

Scale	Legislation/regulatory	Summary of requirements/relevant policies
		On conserving and enhancing the natural environment, paragraph 176 states: "*Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas, and should be given great weight in National Parks and the Broads. The scale and extent of development within all these designated areas should be limited, while development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas.*" In respect to the impact of new development on heritage assets, paragraph 197 states: *"In determining applications, local planning authorities should take account of:* *a) the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;* *b) the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and* *c) the desirability of new development making a positive contribution to local character and distinctiveness."*
District Policy	Havant Borough Core Strategy (Adopted 2011) (Ref. 2)[1]	The Havant Borough Core Strategy sets out the planning framework for borough communities and outlines the strategic priorities and long-term vision for Havant Borough. The study area is located within Havant Borough. The relevant landscape and visual strategic policies in the Core Strategy are: Policy CS11 - Protecting and Enhancing the Special Environment and Heritage of Havant Borough. *"Ensures the key landscape and built form principles set out in the Havant Borough Townscape, Landscape and Seascape Character Assessment are protected and where possible enhanced. "* *Protects and where possible enhances the borough's statutory and non-statutory designated landscape, habitats and features of biological, hydrological or geological interest* Policy CS12 - Chichester Harbour Area of Outstanding Natural Beauty (AONB) *"Carefully assesses the impact of individual proposals, and their cumulative effect, on the Chichester Harbour AONB, and its setting."* *"Conserves and enhances the special qualities of the Chichester Harbour AONB"* CS15 - Flood and Erosion Risk

1 Available at https://cdn.havant.gov.uk/public/documents/ADOPTED%20CORE%20STRATEGY%20.pdf accessed 25/10/23

Scale	Legislation/regulatory	Summary of requirements/relevant policies
–		"*The scheme incorporates flood protection, flood resilience and resistance measures appropriate to the character and biodiversity of the area and the specific requirements of the site."* CS16 - High Quality Design "*Identifies and responds positively to existing features of natural, historic or local character within or close to the proposed development site.* *Integrates with existing local landscape features, promotes wildlife and biodiversity and/or applies characteristics of the local area into the design of a scheme wherever possible to create variety and interest.* *The development does not cause unacceptable harm to the amenity of neighbours through smell, the loss of privacy, outlook, noise and overlooking."* DM9 - Development in the Coastal Zone "*Has no harmful effects on nature conservation within the Chichester and Langstone Harbour SSSIs and SPA, Solent Maritime SAC and Ramsar site, or any SINCs and Local Nature Reserves.* *Maintains and enhances the appearance and distinctiveness of existing settlements and landmarks along the coast."*
	Countryside and Rights of Way Act 2000[1]	*This makes new provision for public access to the countryside; to amend the law relating to nature conservation and the protection of wildlife; to make further provision with respect to areas of outstanding natural beauty; and for connected purposes.*
Supplementary Planning Documents (SPD) or other Evidence Base studies	Havant Borough Design Guide Supplementary Planning Document (Adopted 2011)[2]	The Havant Borough Design Guide Supplementary Planning Document provides detailed information that supplements Policy CS16 (High Quality Design) of the Havant Borough Core Strategy. Relevant Paragraphs include: Paragraph 4.17 - Landmarks and Vistas "*Views, particularly those that are well known to local people, should be considered an asset and should be maximised through the design and layout of a new place. New developments should aim to utilise existing landmarks and views wherever possible in their design"* Paragraph 4.33 - Materials and Detailing "*The choice of materials should be informed by an analysis of the site and its context, this is particularly important in more sensitive areas of the Borough, such as conservation areas and Chichester Harbour AONB. Materials that are common in the Borough include brick; render, clay roof tiles, slate and in places, flint"*

1 Available at https://www.legislation.gov.uk/ukpga/2000/37/section/1 accessed 13/01/24
2 Available at https://www.havant.gov.uk/planning-services/planning-policy/supplementary-planning-documents accessed on 25/10/23

Scale	Legislation/regulatory	Summary of requirements/relevant policies
–	Adopted Joint Chichester Harbour AONB SPD (Adopted 2017) (Ref. 4)[1] **(AONB now called National Landscapes)**	The Adopted Joint Chichester Harbour AONB SPD provides additional guidance for development proposals in the Chichester Harbour Area of Outstanding Natural Beauty (AONB). Relevant paragraphs include: Chapter 10 – Plant Species *"The choice of plants should be appropriate to the setting of the proposal in the wider AONB landscape. Native species typical of Chichester Harbour AONB should be used."* Chapter 13 - Materials and Finishes "*Appropriate materials may include; timber, naturally finished timber boarding, tiles, slate, shingles, brick, flint and appropriately coloured render. Muted and darker tones may help to reduce the visual impact."*
	Langstone Conservation Area Review: Character Appraisal and Management Plan (Adopted 2011) (Ref. 5) [2]	The Langstone Character Appraisal and Management Plan documents the character of the Langstone conservation area and provides guidance for future management of the area. Relevant paragraphs include: Paragraph 2.2 – Opportunities for Enhancement and Improvement "*An essential part of the principle of conservation areas is to preserve or enhance the special or historic interest of the conservation area"* Paragraph 2.2.1 – Open space to the south of the Ship Inn "*South of the Ship Inn, is currently used as a public car park for visitors to the area and customers for the Ship Inn. As identified in Section 5.1 of the character appraisal, this area could benefit from a sympathetic resurfacing*."
	Mill Lane Character Appraisal and Management Plan (Adopted 2017) (Ref.6[3])	The Mill Lane Character Appraisal and Management Plan documents the character of the Mill Lane conservation area and provides recommendations for future management of the area. Relevant paragraphs in section 2 of this document include: Paragraph 2.4.c "*Encourage the retention of hedgerows as boundary features around dwellings and retain/encourage new tree planting within rear gardens to conserve the appearance of the area."*
	Chichester Harbour Management Plan 2019 – 2024 (Adopted 2019) (Ref. 7)[4]	The Chichester Harbour Management Plan presents the harbours visions and outlines planning policies and principle within section 2 and 3 of the document. Relevant policies include: Policy 1 - Conserving and Enhancing the Landscape

Scale	Legislation/regulatory	Summary of requirements/relevant policies
		"To protect the historic and iconic views from the AONB towards Chichester Cathedral, to and from Kingley Vale National Nature Reserve, and to and from the South Downs. *To utilise the 'Sustainable Shorelines: General Guidance' document when considering repairing, replacing or strengthening shoreline defences, informing people about the issue of coastal squeeze.* *To proactively plan and rollback coastal footpaths, rather than lose them altogether through the gradual process of erosion"* PP10 - Shoreline Defences "*The Conservancy will require justification for the works and details of how landscape and nature* *conservation impacts will be addressed, avoided or compensated for.*" PP11 – Intertidal Structures "*Planning applications for intertidal structures will be assessed for their impact on the visual land/seascape, nature conservation and navigational safety.* *Materials with dark/muted/matte colour finishes are proposed.*"

1 Available at https://www.chichester.gov.uk/article/29757/Supplementary-planning-documents-and-policy-guidance accessed on 25/10/23
2 Available;e at https://www.havant.gov.uk/media/7546/download?Online= Accessed on 25/10/23
3 Available at https://www.havant.gov.uk/media/8051/download?Online=accessed on 25/10/23
4 Available at https://chichester.moderngov.co.uk/documents/s13876/Chichester%20Harbour%20AONB%20Management%20Plan%202019-2024%20-%20Appendix%20-%20Online%20Only.pdf accessed on 25/10/23

STUDY AREA

03



Ship Inn

3. STUDY AREA

Determining the Study Area

The study area has been assessed and defined through desk top study, modeling and verification in the field. It is considered, based upon the nature of the proposed development and the current design, that the proposed development would not have significant effects beyond a distance of 1 km. Field study sheets were undertaken on the site visit undertaken on May 2022 and these accessed the 3 main types of landscape found around the proposed development study area. These can be found in Chapter 6.

OS base maps and aerial photography were used to determine where a straight line of sight of the proposed development may be available and therefore indicating potential viewpoint locations, considering the topography and any intervening features such as buildings and vegetation.

Viewpoint photography undertaken as part of the assessment has not been undertaken from private land/property, therefore professional judgment has been used to assess the potential effect of the proposed development upon visual receptors.

Figure 3 - Viewpoint Location Plan, shows the viewpoints representing visual receptors whose views are considered likely to be affected by the proposed development.

The establishment of the study area should be proportionate to the following factors:

- The project boundary/construction activity (including compounds and temporary land take;
- The wider landscape setting within which the project has the potential to influence;
- The extent of the area from which the project is potentially visible;
- The full extent of adjacent or affected landscape receptors of special value whose setting will be influenced by the projects (conservation areas, designated areas);
- The extent of the study area for the assessment has been determined by an on-site appraisal of the proposed development's visibility and the existing physical characteristics of the landscape.

As part of the scoping, specific views and receptors were identified following consultation with the Havant Borough Council, landscape architect, conservation and planning case officer. These were then checked and assessed onsite as part of this LVIA, these include:

- Viewpoint 1: The viewpoint was taken Solent way (PRoW). The path crosses arable fields and then runs along the shoreline of Chichester Harbour towards the village of Langstone in the west and to the east towards



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LEGEND
Core Scheme
1km Buffer
Viewpoint

NOTES
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PROJECT NUMBER
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FIGURE TITLE
Viewpoint Plan

FIGURE NUMBER
Figure 3

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Emsworth. Distance from development 728m

- Viewpoint 2: This viewpoint is taken just off Northey Road on Hayling Island. Distance from development 775m
- Viewpoint 3: This viewpoint is taken from a mudflat causeway that becomes visible at low tide. This is an historic wadeway. This is a PRoW (108/132/1) and historically was a link between Hayling Island and the village of Langstone beach. Distance from development 433m.
- Viewpoint 4: This viewpoint was taken from a shingle beach on the edge of Chichester Harbour adjacent to the Old Mill. Distance from development 6m.
- Viewpoint 5: Langstone Bridge (A3023) that runs between Hayling Island and the mainland. Distance from development 265m
- Viewpoint 6: The view was taken from Langstone Meadows to the east of the village. Distance from development 180m
- Viewpoint 7: Viewpoint taken from the shingle beach looking north up Langstone High Street. Distance from development 13m
- Viewpoint 8: Viewpoint taken from the Ship Inn car park on the quay edge along PRoW (108/129/2). Within the site.
- Viewpoint 9:This viewpoint is taken from the shingle beach just below the harbourside pathway (PRoW 108/129/2) in Chichester Harbour, adjacent to Green Cottage Annex. Within the site.
- Viewpoint 10: Viewpoint is taken from the Middle of Langstone High Street. Residential properties to the pavement edge. St Nicholas Chapel on Towers Garden Road. Distance from development 75m.
- Viewpoint 11: Wayfarer's Walk on the seafront. Located to the back of residential properties in Langstone Village. This section of the footpath is located between the A3023 (Langstone Road) and Billy Lane South. Within the development.
- Viewpoint 12: The view was taken from Langstone Harbour foreshore, adjacent to the gardens of the properties on Harbourside. Distance from development 128m.
- Viewpoint 13: Viewpoint taken from Warblington Cemetery around Thomas a Beckett Church. Distance from development 1.12km.
- Viewpoint 14: The view was taken from the Hayling Billy Line / Shipwrights Way. Within the development.

Judgments upon value, susceptibility to change and visual receptor sensitivity outlined in the following paragraphs, were made in accordance with the criteria and process outlined in the methodology section.

The Frontage subdivisions are described as:

Frontage 1A: Billy Line North. The flood defence comprises of a raised earth embankment and follows the line of the existing Billy Line cycleway (A National Cycle Route 2 cycleway). The existing cycle path is to be upgraded to a new 3m wide cycle path which sits on top of the flood embankment.

Frontage 2: Billy Line South. The design for Frontage 2 consists of a of a sheet-piled wall. Raised earth embankments are included where the defence alignment needs to cross existing utility pipes. The existing cycle path is to be upgraded to a new 3m wide cycle path which sits adjacent to the sheet-piled wall. Frontage 2 ties in with Frontages 1A and the existing higher levels on the A3023 road.

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Frontage 5: Langstone High Street to the field north of Royal Oak. Frontage 5 consists of a continuous flood defence that largely comprises of 5 structures. These structures include the High Street flood gates, the Royal Oak flood wall, the Allotment flood wall, the Footpath flood wall that runs west of the Mill Pond, and an earth embankment in the field north of Royal Oak. Demountable flood defences are provided between the section transitions.



LANDSCAPE AND VISUAL BASELINE OVERVIEW

04

ISO A1 594mm x 841mm
Project Management Initials:
Designer: DW
Revision: C02
Checked: CP
Approved: JScott
Drawn: DW



TREES: FRONTAGE 2
All standard tree to be double staked (as detail) and protected with a biodegradable tree guard (GreenTech Bio-earth tree shelter or equivalent).
All trees to have bark mulch (either chipped if suitable from arisings of clearance or locally sourced bark chip mulch) to 75mm depth.

CODE	Latin name	Common name	Form	Age / Condition	Girth	Height	Clear stem	Roots	Container	No.
AC	*Acer campestre*	Field Maple	Standard (Extra Heavy)	3x	16-18	400-450	min 200	RB	60cm	2
CA	*Corylus avellana*	Hazel	Feathered	2x		125-150		B		7
CM	*Crataegus monogyna*	Hawthorn	Feathered	2x		125-150		B		1
MD	*Malus domestica*	Apple	Standard (Extra Heavy)	3x	16-18	400-450	min 200	RB	60cm	2
MS	*Malus sylvestris*	Crab Apple	Standard (Extra Heavy)	3x	16-18	400-450	min 200	RB	60cm	3
PO	*Populus × canescens*	Grey poplar	Standard	3x	16-18	min 450	min 200	RB		1
PT	*Populus tremula*	Aspen	Standard (Extra Heavy)	3x	16-18	400-450	min 200	RB	60cm	1
PA	*Prunus avium*	Wild Cherry	Standard (Extra Heavy)	3x	16-18	400-450	min 200	RB	60cm	1
PP	*Prunus padus*	Bird Cherry	Standard	3x	16-18	min 450	min 200	RB		1
PS	*Prunus spinosa*	Blackthorn	Feathered	2x		125-150		B		2
QR	*Quercus robur*	Common Oak	Standard (Extra Heavy)	3x	16-18	400-450	min 200	RB	60cm	4

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AECOM

PROJECT

Langstone Flood and Coastal Erosion Risk Management Scheme

CLIENT

HAVANT BOROUGH COUNCIL

CONSULTANT

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NOTES

GENERAL NOTES
1. THIS DOCUMENT IS TO BE READ IN CONJUNCTION WITH ALL OTHER RELEVANT DOCUMENTATION.
2. DO NOT SCALE FROM THIS DRAWING, USE ONLY PRINTED DIMENSIONS.
3. ALL DIMENSIONS IN MILLIMETRES, ALL CHAINAGES, LEVELS AND COORDINATES ARE IN METRES, UNLESS DEFINED OTHERWISE.
4. DEFENCE LENGTH/EXTENT SHOWN ARE APPROXIMATE. THE EXACT EXTENT OF THE TYPICAL CROSS SECTION IS TO BE CONFIRMED ON SITE WITH THE SUPERVISOR.
5. EXISTING PATH LEVELS VARIES ALONG DEFENCE LENGTH, AND BEACH LEVEL VARY SPATIALLY AND WITH TIME.
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7. ALSO REFER TO DRAWINGS:
FRONTAGE 1A DRAWINGS - ##1201 TO ##1206
SITE CLEARANCE PLAN - #011031

DRAWING SPECIFIC NOTES:
8. TREE LOCATIONS SUBJECT TO SITE CONDITIONS AND TO BE AGREED ON SITE.

LEGEND

- MIX 1 - HEDGEROW SEED MIX
- MIX 2 - DIVERSE MEADOW MIX
- MIX 3 - COASTAL MEADOW SEED MIX
- MIXED NATIVE SPECIES PLANTING
- PROPOSED TREES
- EXISTING TREES RETAINED
- EXISTING VEGETATION RETAINED WHERE POSSIBLE
- MACADAM SURFACING (to engineers details)
- PROPOSED TIPTREE BENCH SEATING WITH MACADAM SURROUND and PCC EDGING
- BEE POST
- IB INTERPRETATION BOARD LOCATION DETAILS TBC
- MIXED NATIVE INSTANT HEDGE

ISSUE/REVISION

P01	21/11/23	100% Detailed Design
P02	08/02/24	
P03	26/02/24	100% Detailed Design
C01	26/02/24	Construction Issue
P04	03/02/25	FOR PLANNING
C02	03/02/25	FOR PLANNING
I/R	DATE	DESCRIPTION

ISSUE PURPOSE / SUITABILITY

Detail Design Authorised/Accepted

KEY PLAN

PROJECT NUMBER

60656877

SHEET TITLE

FRONTAGE 2
LANDSCAPE LAYOUT

SHEET NUMBER

LANG-ACM-LS-F2-DR-LA-011021

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4. LANDSCAPE AND VISUAL BASELINE OVERVIEW

Introduction

A site survey was undertaken by a Chartered Landscape Architect, who visited the study area in May 2022 when vegetation was in leaf. This process identified, informed and refined the local character areas, and the number and type of visual receptors looking towards the Proposed Development and the nature of the views. The viewpoint locations are shown on Figure 3 :

An overview of the baseline conditions is given in

- Figure 4: National Character Area
- Figure 5: Local Landscape Character Areas
- Figure 6: District Level Character Areas
- Figure 7: Chichester Harbour AONB (recently renamed as National Landscapes) Landscape Character Assessment
- Figure 8: Designations of Relevance to Landscape
- Figure 9: Coastal Designations of Relevance to Landscape.

Photo sheets have been prepared for the receptors identified as being affected by the Proposed Development and are shown in Chapter 7, in accordance with LI TGN-06-19 Visual Representation of Development Proposals.

The following resources were utilised to establish the baseline landscape and visual amenity conditions:

- Havant Borough Core Strategy (Adopted 2011)
- Havant Borough Design Guide Supplementary Planning Document (Adopted 2011)
- Langstone Conservation Area Review: Character Appraisal and Management Plan (Adopted 2011)
- Mill Lane Conservation Area Character Appraisal and Management Plan (Adopted 2017)
- Chichester Harbour Management Plan 2019 – 2024 (Adopted 2019)
- Natural England: National Character Area Profiles 126 (2013);
- MAGIC (DEFRA) interactive GIS dataset;
- Historic England (various sources)
- Topographical survey and;
- Google Earth.

Arboricultural Assessment

Please refer to ES Appendix L8- Arboricultural Constraints Assessment and Plans

A Tree Survey Report was undertaken by an independent arboricultural consultant Bernie Harverson in May 2022. This outlines the tree survey schedule and root protection measures that would need to be undertaken to protect the trees.

In consultation with an Arboricultural consultant, a management methodology has been developed where an individual assessment of the tree roots is undertaken. Depending on the extent of root disturbance a decision will then be taken on the future viability of the tree development. See Tree Survey and Arboricultural Implications Assessment (AIA), which can be found in Appendix L8 of the ES.

Details of the tree to be removed can be found in Annex E Site Clearance Drawings.;

- Frontage 1a - no trees affected.
- Frontage 2 - 1 Tree to be removed at western end on boundary with Frontage 1a.

4 or potentially 5 (arboriculturalist to advise on site) trees to be removed at eastern end in the vicinity of Frontage 3.

- Frontage 3 - no trees affected.
- Frontage 4 - one tree may be affected by the works but will require further assessment by the project arborist.
- Frontage 5 - TPO woodland areas affected.

It has been recommended before any work is carried out that the council is consulted.

4. LANDSCAPE BASELINE OVERVIEW

National Character Areas

Description of the Character

National Level: Natural England. National Character Area (NCA 126). South Coast Plain (2004)

National Character Areas

The extent and location of the National Character Areas (NCAs) are shown on Figure 4.

National Character Areas (NCAs), as defined by Natural England, provide a broad description of landscape character. The NCA of relevance and deemed likely to be impacted by the Proposed Development, is the **National Character Area Profiles: (NCA 126). South Coast Plain (2004)**

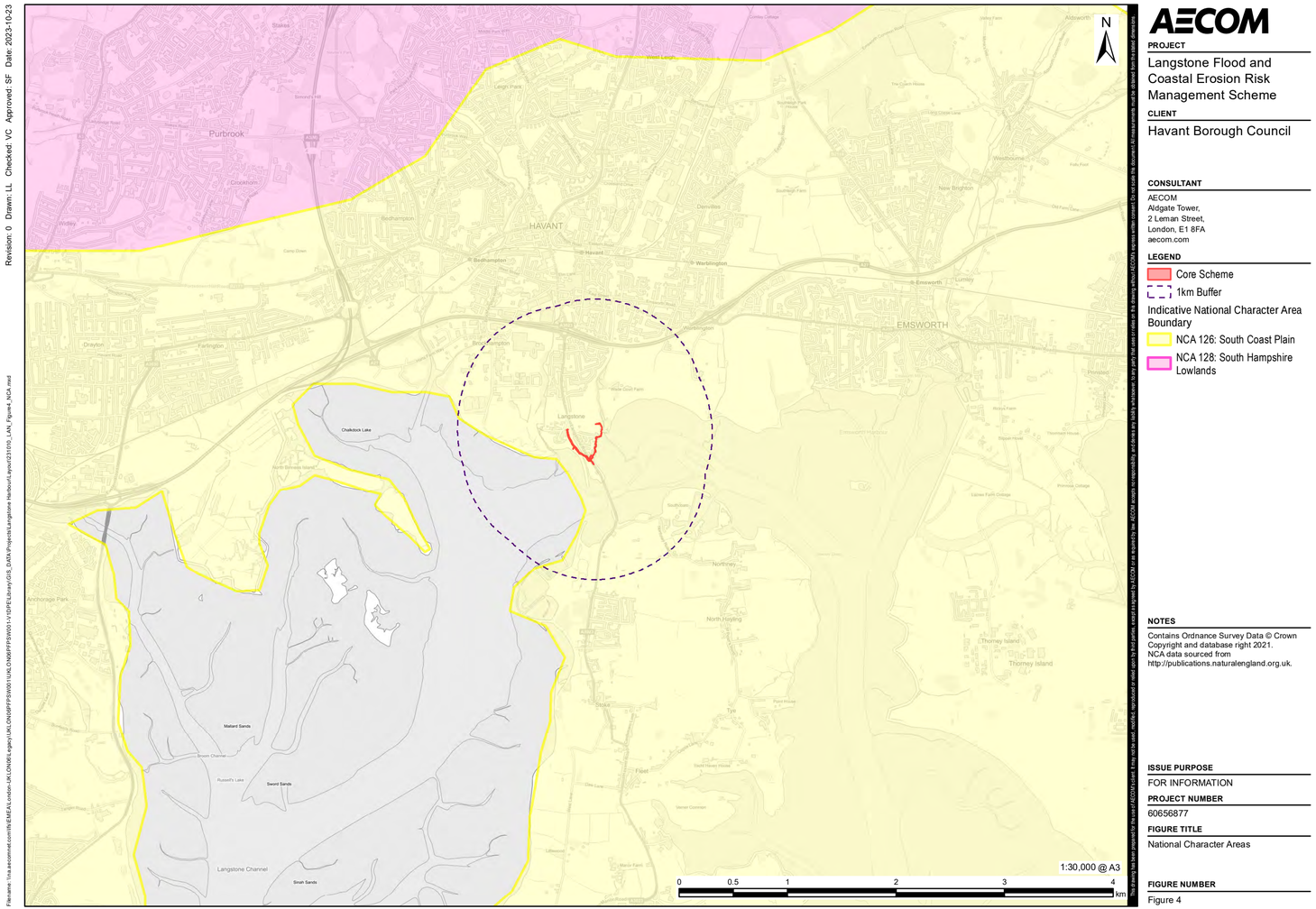
The whole of the study area is covered by NCA 126 South Coast Plain (Natural England, 2004). The key characteristics of this NCA in relation to the study area are:

"Typically, a flat coastal landscape with multiple major inlets along the shoreline. The landscape provides a feel of openness due to flat land and wide sea views with long single beaches or sand dunes forming the main coastal features."

"Views of the sea and maritime and seaside influences generally have inspired artists from Oscar Wilde to Eric Coates."

Statements of Environmental Opportunity (SEO) 1:

"Plan for and manage the effects of coastal change by allowing the operation of natural coastal processes and improving the sustainability of current management practices along the diverse coastline to successfully integrate the needs of the natural environment, landscape, local communities, agriculture and recreation amid significant urban stretches."



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LEGEND
- Core Scheme
- 1km Buffer

Indicative National Character Area Boundary
- NCA 126: South Coast Plain
- NCA 128: South Hampshire Lowlands

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NCA data sourced from http://publications.naturalengland.org.uk.

ISSUE PURPOSE
FOR INFORMATION

PROJECT NUMBER
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FIGURE TITLE
National Character Areas

FIGURE NUMBER
Figure 4

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4. LANDSCAPE BASELINE OVERVIEW

Local Landscape Character Information

Description of the Character

Local Level: Havant Borough Townscape, Landscape and Seascape Character Assessment (Adopted 2007)

Landscape Character Area (LCA) 26. Warblington and Wade Court

Gently undulating land. Wade Court and wooded grounds occupy the land east of Langstone. The majority of the remainder of the land is made up if Grade 1 and 2 agricultural land.

LCA 27. Langstone

Low lying flat land is the major character of this area, with mature trees lining the A3023 and a small broadleaf woodland with grasslands on the western boundary.

The major road, A3023, that cuts through Langstone is noted as a noise and physically barrier and divide between the village.

Views are limited as the village is *"internally enclosed by the built form while the adjacent boundary vegetation also limits views out. However, from the harbour edge there are long views out across Chichester Harbour which creates a sense of openness"*

LCA 32. Langstone Harbour

The landscape is dominated by intertidal mud and sand with scattered as well as continuous salt marshes.

"At mean high tides, water covers about 1,900 hectares of the whole of Langstone Harbour, however only about 200 hectares are permanently under water leaving 1,700 hectares of mud exposed at mean low tide."

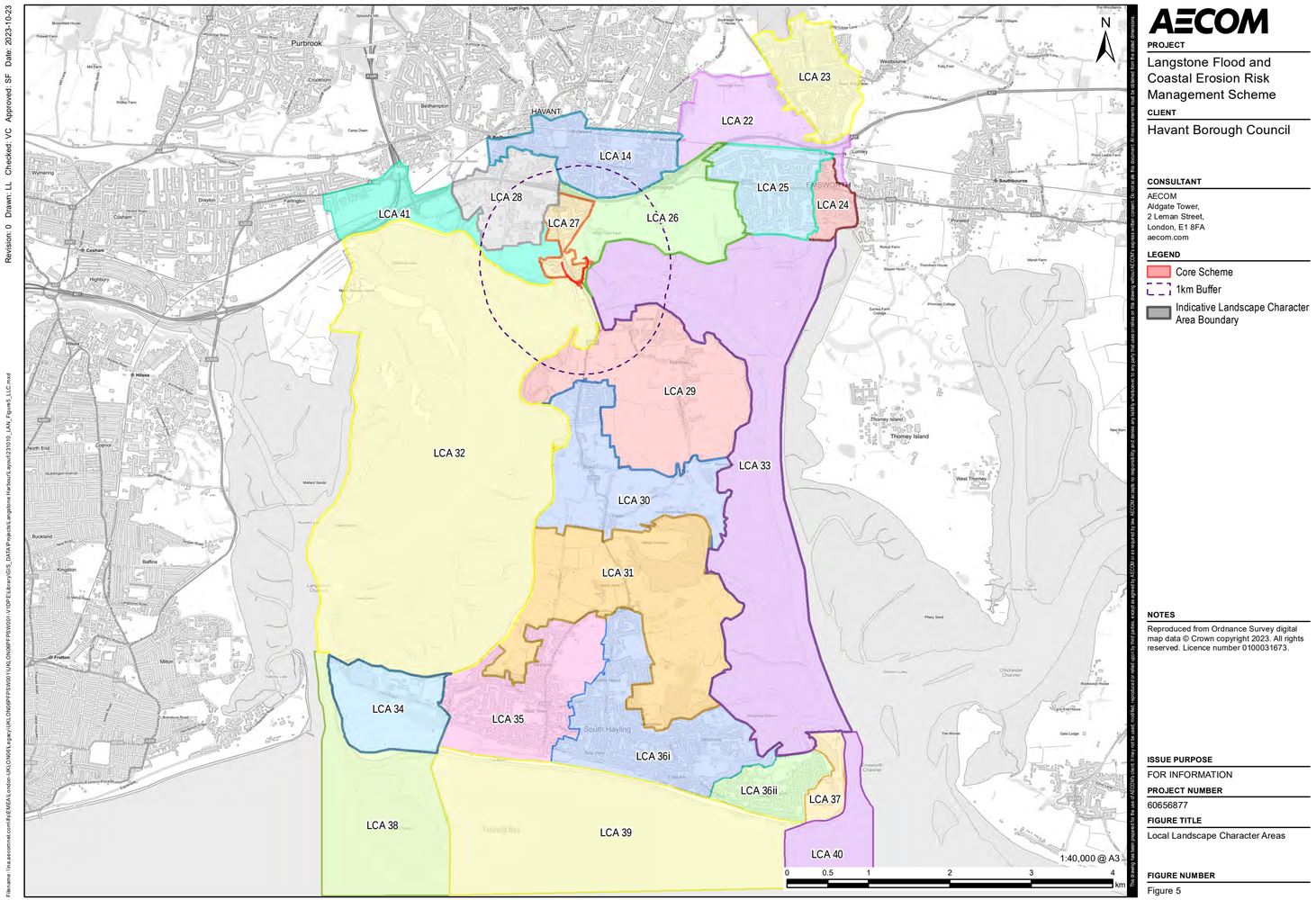
Views are open with a tranquil setting, "the harbour is a popular recreation area, with its sheltered waters used for active water sports. Nearly the whole of its shoreline is accessible by foot."

LCA 33. Chichester Harbour

Large expanse of mud and some sand bank visible at low tide. Areas of salt marshes on some of the mudflats. South of Hayling Island, the shoreline is more indented, while the northern section of the basin has a smoother shoreline.

Adjacent to the site and within the 1km buffer zone and are LCA;

- *14 Havant historic core;*
- *28 Brockhampton Industrial Estate;*
- *29 North Hayling;*
- *30 Stoke and North -west Hayling and:*
- *41 South Moor and Broadmarsh Costal Park.*



Revision: 0 Drawn: LL Checked: VC Approved: SF Date: 2023-10-23

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LEGEND
- Core Scheme
- 1km Buffer
- Indicative Landscape Character Area Boundary

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ISSUE PURPOSE
FOR INFORMATION

PROJECT NUMBER
60656877

FIGURE TITLE
Local Landscape Character Areas

FIGURE NUMBER
Figure 5

4. LANDSCAPE BASELINE OVERVIEW

District Level Character Information

Description of the Character

District Level: Hampshire County Integrated Character Assessment (Adopted 2012)

Landscape Character Area

In comparison to the NCAs, the regional scale provides for a more detailed overview of the Landscape Character Areas.

Landscape Character Area (LCA). 10A: Langstone and Chichester Harbours

This LCA includes harbour mouths which seen as part of the harbour seascape rather than the coastal sea particularly in terms of recognised 'management areas' i.e. the Chichester Harbour AONB boundary and Langstone Harbour Board boundary. The AONB character areas are also closely aligned with the Borough ones.

Paragraph 2.0

"A shallow marine basin enclosed by a low lying natural and man-made sea defence shoreline of low walls and embankments."

"Within the harbours there is strong sense of remoteness and separation from the surrounding highly populated areas."

Paragraph 3.2

"Langstone and Chichester harbours are shallow marine basins characterised predominantly by mud flats but also sand banks particularly in the southern reaches and raised marine beach deposits of shingle"

Paragraph 5.1

"Langstone Harbour is an internationally important habitat for a range of waterfowl and waders, designated as a RAMSAR site, an SPA, SAC and SSSI."

Paragraph 6.2.2

"Salterns were a particular feature of the more sheltered western shores of Langstone and Chichester harbour"

Landscape Character Area (LCA). 9G: Havant and Emsworth Coastal Plain

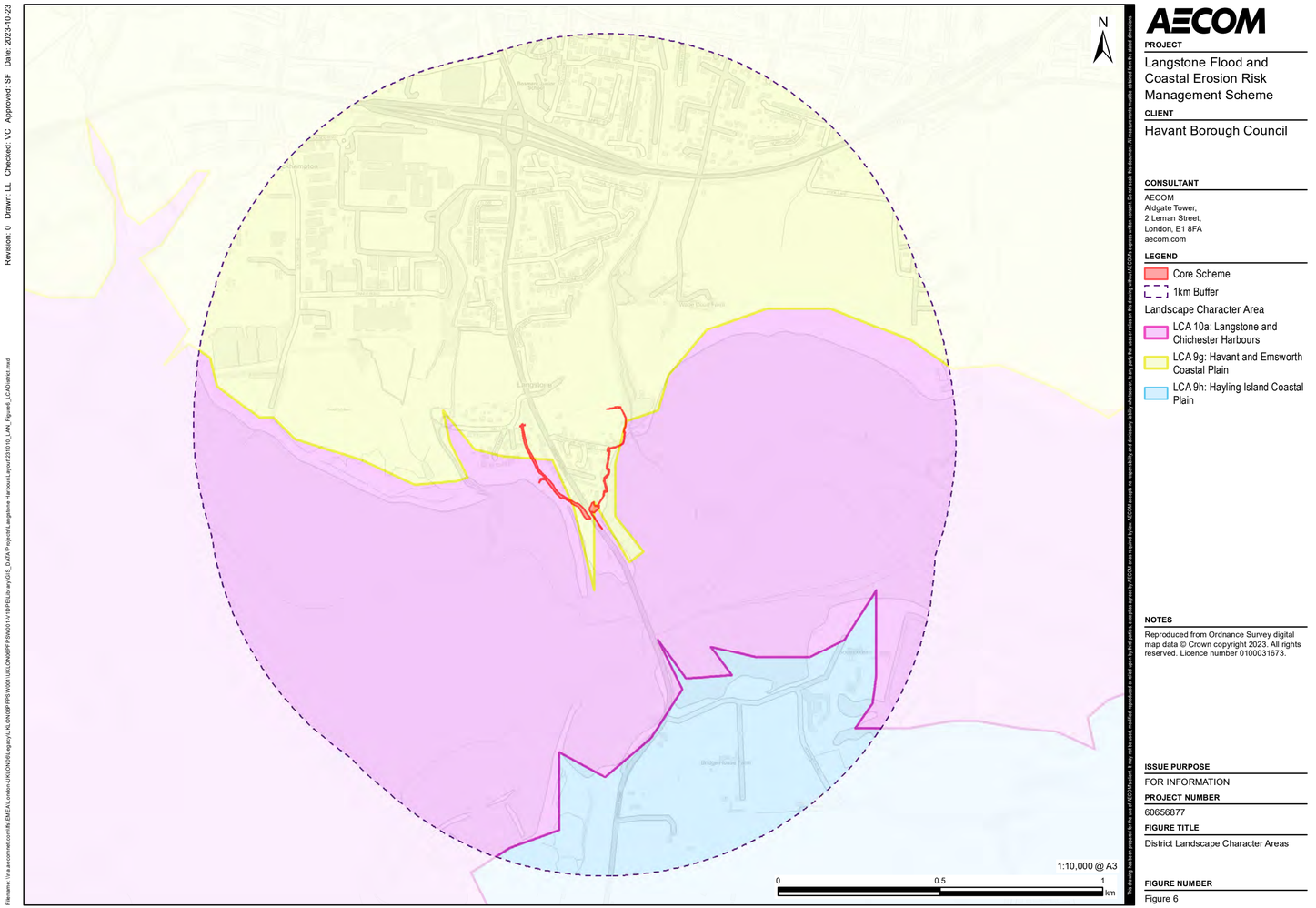
This area is bounded to the east by the County boundary with West Sussex and to the west by Farlington marshes and Portsmouth.

Paragraph 6.1.1

"The fringes of Langstone harbour are rich in Mesolithic evidence indicating the coastal plain was being utilised. In the early part of the period this would have been an inland rather than a coastal zone, despite being harbour edge today."

Paragraph 6.3.5

"Tide mills are a particular characteristic of this character area and in the context of the Solent coastline. The mill at Langstone is an iconic feature of this part of the coast. The associated mill ponds are attractive features, and many have public access to the edge such as at the Langstone and around Emsworth. Flint is a fairly typical building material due to the presence of chalk on the coastal fringe."



4. LANDSCAPE BASELINE OVERVIEW

Local Landscape Character Information

Description of the Character

Local Level: Havant Borough Townscape, Landscape and Seascape Character Assessment (Adopted 2007)

C1 Langstone Harbour Head

Langstone Bridge (A3032) marks the boundary between C1 Langstone Harbour Head and C2 Emsworth Channel Head. The eastern part of Langstone village is covered by this character area.

Paragraph 4.4.17.

"This character area, outside the AONB boundary, is distinctive for its combination of vast tidal mudflats, saltmarsh, small grassland/saltmarsh islands and very broad open water channels."

C2 Emsworth Channel Head

Langstone Bridge (A3032) marks the boundary between C1 Langstone Harbour Head and C2 Emsworth Channel Head. The eastern part of Langstone village is covered by this character area.

Paragraph 4.4.18.

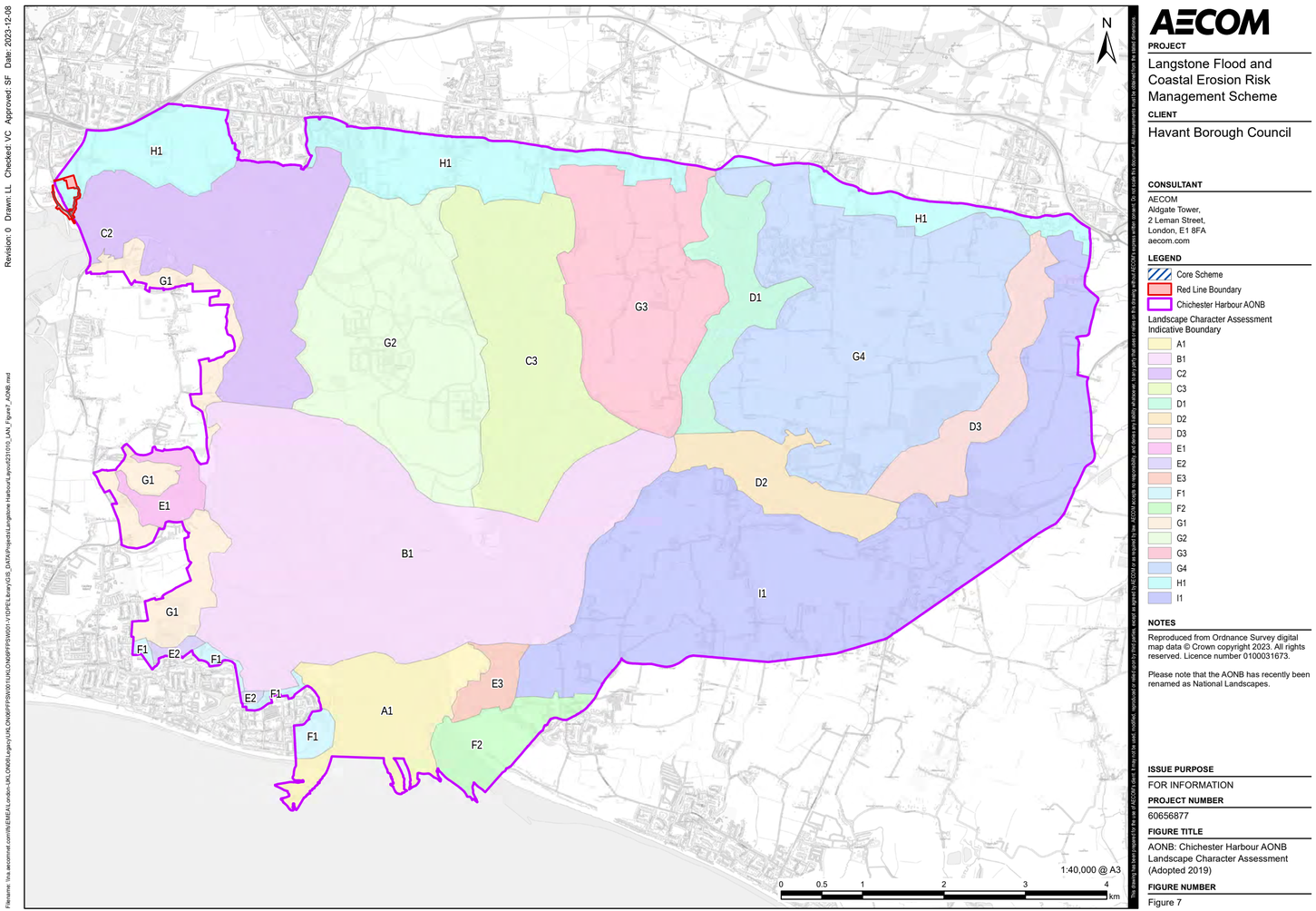
"Character Area comprises extensive areas of mudflats fringed by saltmarsh at low tide through which the Emsworth Channel flows. North of Hayling Island the inlet is particularly open and expansive, narrowing a little before it joins the main Harbour pool. The winding creeks and channels in the saltmarsh have carved an intricate pattern, distinctive of a saltings landscape, and it supports large numbers of wildfowl and waders which add movement to this dynamic coastal environment."

"Built development and marinas around some of the edges of the character area and a high density of moored yachts along some of the channels, reduce tranquility. Long, mostly uninterrupted views are characteristic of the area"

H1 Emsworth Channel Head

Frontage 5 and the main compound area fall with this area. This forms part of the mainland coastal strip to Havant Borough and much of Hayling Island.

'It is an important open and predominantly rural area setting to both Langstone and Chichester Harbours and separates Havant from Portsmouth. The type is characterised by its flat topography, occasionally modified by man, its tidal inlets, its mix of arable fields,marsh and small woodlands and the survival of small settlements in predominantly rural settings.'



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LEGEND
- Core Scheme
- Red Line Boundary
- Chichester Harbour AONB

Landscape Character Assessment Indicative Boundary
- A1
- B1
- C2
- C3
- D1
- D2
- D3
- E1
- E2
- E3
- F1
- F2
- G1
- G2
- G3
- G4
- H1
- I1

NOTES
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Please note that the AONB has recently been renamed as National Landscapes.

ISSUE PURPOSE
FOR INFORMATION

PROJECT NUMBER
60656877

FIGURE TITLE
AONB: Chichester Harbour AONB Landscape Character Assessment (Adopted 2019)

FIGURE NUMBER
Figure 7

4. LANDSCAPE BASELINE OVERVIEW

Land Designations

Description of the Character

Landscape Baseline

Designations within the site area

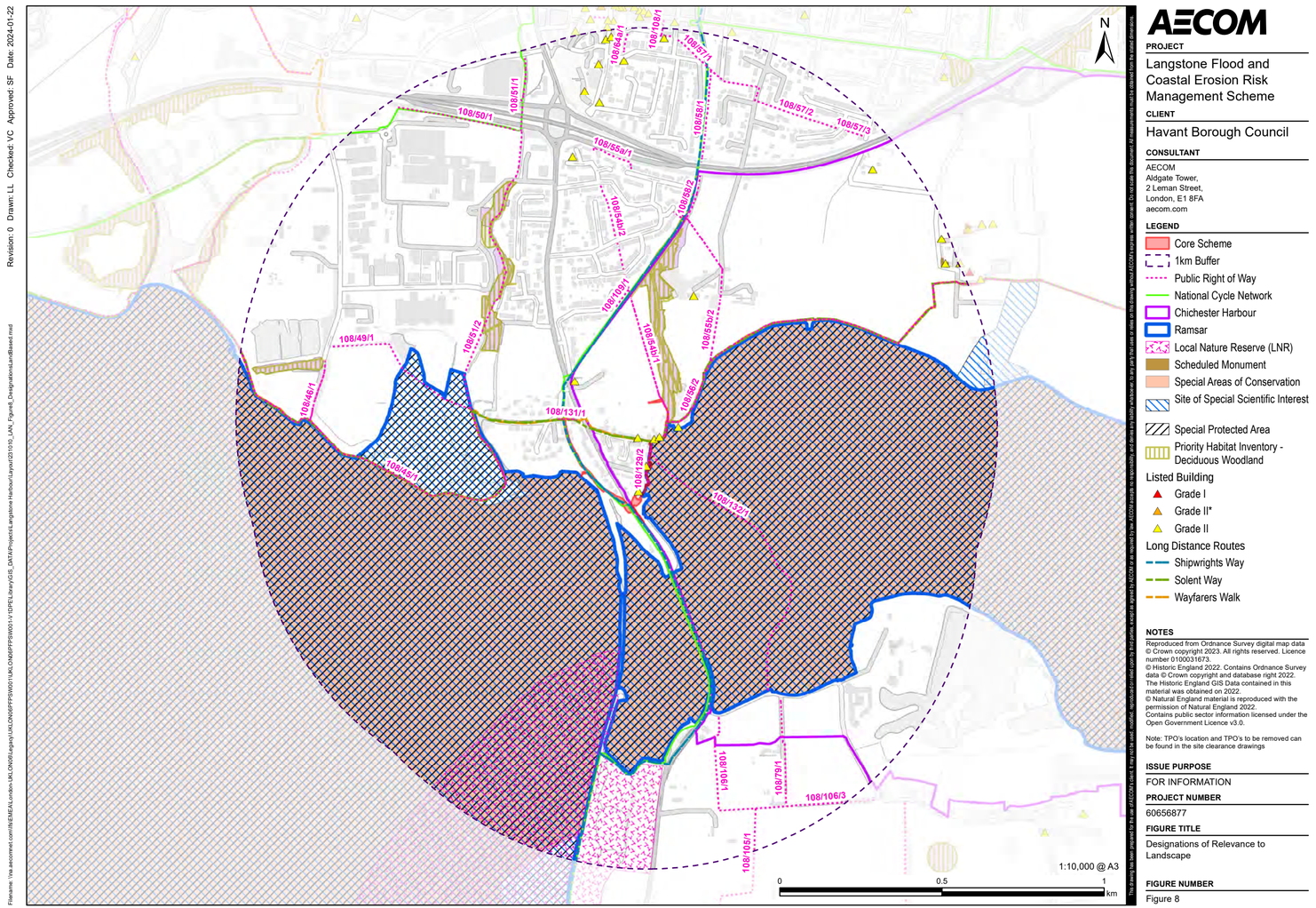
- *Chichester Harbour Area of Outstanding National Beauty (AONB)*
- *Chichester Harbour Site of Special Scientific Interest (SSSI)*
- *Langstone Harbour SSSI*
- *Chichester and Langstone Harbours Ramsar Site*
- *Solent Maritime Special Areas of Conservation (SAC)*
- *Chichester and Langstone Harbours Special Protected Areas (SPA)*

Conservation areas within the site:

- *Langstone Conservation Area*
- *Wade Court Conservation Area*
- *Mill Lane Conservation Area*

Listed Buildings within the site

- *8 – 14 Langstone High Street. Grade II*
- *16, 17 and 18 Langstone High Street. Grade II*
- *20 Langstone High Street – The Royal Oak. Grade II*
- *22 Langstone High Street – The Old Mill. Grade II*
- *23 Langstone High Street – The Green Cottage. Grade II*
- *59 and 61 Langstone High Street. Grade II*
- *The Ship Inn. Grade II*



4. LANDSCAPE BASELINE OVERVIEW

Coastal Designations

Description of the Character

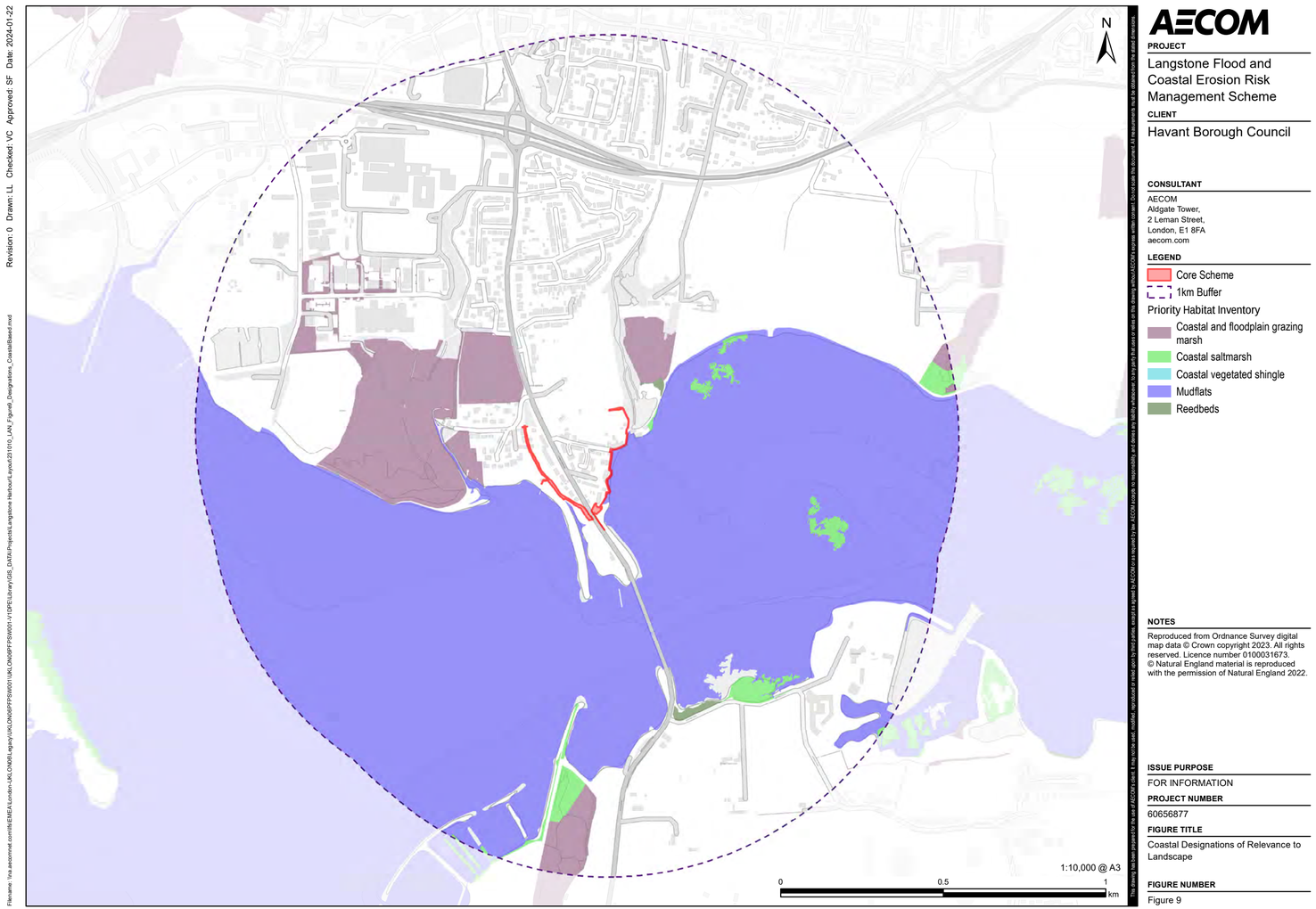
Coastal Designations

As stated within the Ecology Intertidal Phase 1 Biotope survey and a Phase 11 (Appendix L2 of the ES)

'Within Langstone and Chichester Harbours is a range of habitats including saltmarsh habitat and intertidal mudflat habitat.

In Chichester Harbour consists of saltmarsh that were present as a mosaic within an area of extensive intertidal mudflat habitat, with large amounts of fragmentation between communities. More diverse and densely populated saltmarsh habitat was recorded in two tidal creeks identified in Langstone Harbour.

In general, the upper shore and littoral fringe in both harbours was dominated by 'littoral coarse sediment' and 'coastal shingle', which was particularly evident in the foreshore in front of Langstone village.'



LANDSCAPE ASSESSMENT

Topographical analysis

Description of the Character

Landform

This is a gently undulating landscape with some localised elevated areas. The inlets and the streams can be steep sided. Many of the water sources are piped within the urban environment.

Topographical changes within the harbour basin at low tide which expose mud banks, sand flats, shingle beaches and water channels that are hidden at high tide.

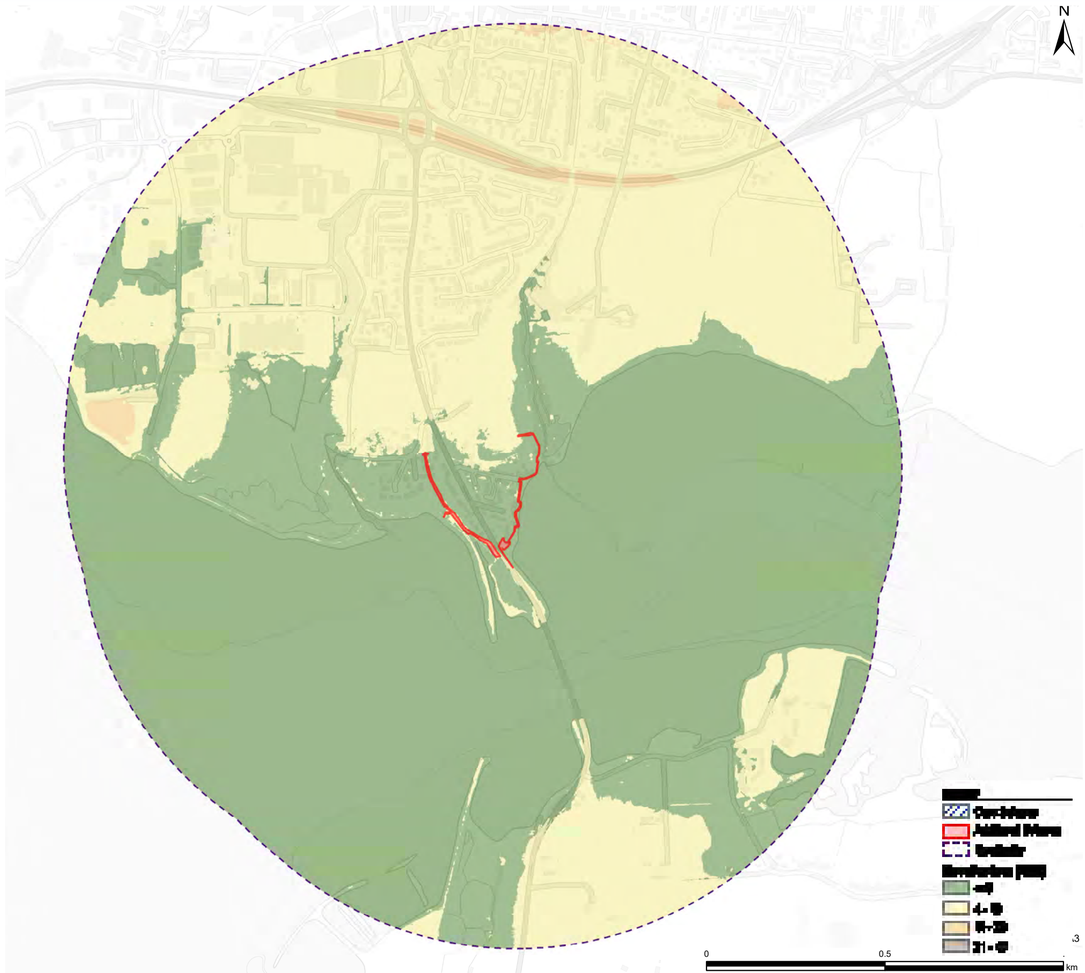
The landform gently undulates between 10m and 5m AOD.



Land to the perimeter of the housing development was historically arable farmland. This landscape retains in flat nature within vegetation being pushed to the field perimeter.



Flat open views across the open harbour basin. Land beyond ifs flat, allowing expansive views.



LANDSCAPE ASSESSMENT

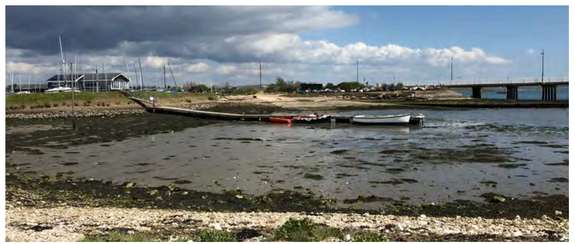
The Existing Site Context - Landform and Hydrology

Description of the Character



Coastline

A considerable area of the borough sea front has be modified as a result of sea protection measures.



Tidal range

The tidal range is typically between 4 and 5m on the spring tides. This leaves an extensive intertidal area between the harbours.,



Stream corridors

The stream corridors are characterized by native trees, shrubs and areas of rough grassland. In some areas mature oak trees can be found, along with the remnants of hedgerow.



Greenspace pockets

Within the newer development style and to the urban fringe of the village infrastructure, there are pockets of green space. There are also remnants of an historic field structure, which dictate the pattern and management style of the vegetation.

Landform and Hydrology

- *The landform of the area is varied due to the underlying geology.*
- *The Site is the edge of a flat coastal landscape which gradually slopes south towards the coast at around 5m AOD*
- *Chichester Harbour is a tidal coastline therefore, land such as the Wadeway between Langstone Village and Hayling Island.*
- *Langstone Road, alternatively known as the A3023 or Langstone Bridge, connects Langstone to Hayling Island.*
- *Hayling Island is a low-lying Island with few backshore features and gravel beaches.*
- *Short streams drain down into the harbour plain.*

The Existing Site Context - Settlement Pattern and Land Use

Description of the Character



Impact of Urban development

The style and density of the housing mix has impacted on the development of the urban framework. It has resulted in a mosaic of habitat types including gardens, street trees, verges, woodland areas, buffer planting and playing fields.



Settlement pattern

The historic development core lies to the harbour frontage with the newer developments and the industries being developed to the rear.



Historic coastal port and commercial development

Langstone was a coastal port that served the agricultural hinterland. The port has now reestablished itself as a recreational area, supporting sea-based amenities.



Harbour usage

Due to the substantial intertidal flow the boat moorings are concentrated within the main drainage channels which retain water at low tide. Langstone Sailing Club offer facilities for both dinghy and yacht sailors, as well as rowers, kayaks and small fishing boats

Settlement Pattern and Landuse

- *Settlements within the village are divided east- west by the A3023 road which connects to Hayling Island to the south and Langstone's main village to the north.*
- *Housing clusters to the west of the road area typically have larger plots and housing sizes.*
- *The residential area to the east of the road is more compact with smaller plot sizes.*
- *Predominant land use within Langstone is residential including residential amenities.*
- *Parking facilities and Langstone Sailing Club are located to the south of the village.*

The Existing Site Context - Vegetation patterns and Landcover

Description of the Character



Stream side vegetation

Throughout the built environment there are organic patterns of vegetation development along the stream side. This ranges from dense woodland to the more open habitat of grassland and scrub.



Salt Marsh Vegetation

In the minor inlets and fringing the estuaries are areas of salt marsh vegetation. These species are tolerant of the sea and salt.



Broadleaved woodland

Small pockets of woodland are located in between the housing developments and along the recreational routes. Significant planting belts can be found around Langstone meadows and Wade Court Park. Limited tree planting along the Solent Way.



Mudflat habitat

There are extensive areas of intertidal mudflat habitat, The upper shore is dominated by littoral coarse and costal shingle

Vegetation patterns and Landcover

- *Wet acid meadows and pastures are located inland to the north of Langstone village with the large open Langstone meadow to the east of Langstone Road.*
- *Another open grassland sits opposite to the meadow on the other side of the A3023.*
- *The main landcover within Langstone village is grassland and woodland.*
- *Mature trees align major roads, and a small broadleaf woodland borders the entrance to Mill Lane from Langstone Road.*
- *Wetlands enclose the residential area of Langstone to the east and west and link the land to the water's edge.*
- *Salt marsh habitats are common.*

The Existing Site Context - Movement and Connectivity

Description of the Character



Seascape vistas

Within the historic core of Langstone village , the local road network radiates towards the harbour side. This provides some stunning unhindered vistas of the coastline.



Billy Line

This provides and important connectivity link between the housing and commercial development to the rear of Langstone town and the harbour walks and coastal paths.



Historic wafering links

The village of Langstone and Hayling Island historically were interconnected by a sea bank which was passable at low tide. This is no longer passable following dredging of the channel.



Coastal walks

Skirting the harbour edge are coastal paths that allow sweeping views of the harbour basin and the island of Hayling.

Movement and Connectivity

- *The A3023, alternatively named Langstone Road, runs from the A27 connecting the Upper Langstone Village to Langstone and Chichester Harbours and later connects onto Hayling Island.*
- *Mill Lane cuts through the A3023 providing access to settlements in the west of Langstone Village.*
- *Langstone High Street provides access to residents and amenities to the east of Langstone Village ending at the coastline.*
- *Langstone Harbour contains multiple public rights of way and tourist walking route which have been identified by Hampshire County Council. Relevant pathways include;*
- *The Shipwrights Way runs from Farnham to Portsmouth passing through Langstone as part of a 5.5mile section. The walk travels along Langstone Road into Hayling Island, later using a ferry to cross into Portsmouth.*
- *Wayfarers Walk is a 70 mile walk which runs from The Chalk Downs in Inkpen to Emsworth Harbour, traveling through Langstone Village along Mill Lane and the High Street. The walk continues along the coastline linking Langstone to Emsworth.*
- *Solent Way takes the same route as Wayfarers Walk. A predominantly coastline walk from Southampton to Emsworth traveling through Langstone.*
- *Havant Footpath. Route Number: 129. From Langstone High Street to foreshore east of The Ship Inn.*
- *Havant Bridleway. Route Number: 132 The Wadeway. (Cannot be accessed at high tide). From Langstone High Street southwards to North Hayling.*

LANDSCAPE ASSESSMENT

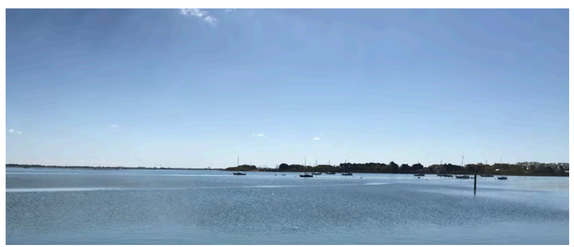
The Existing Site Context - Experiential Qualities

Description of the Character



Long views

As the land is predominantly flat and low lying it allows long views across the harbour basin.



Big skies

The flat landform and the agricultural plain contribute to the open, vast, calming nature of the shorescape.



Intertidal seascape

The movement of the tide changes a substantial part of the costal view and creates varying landscapes. These can impact on the colour, movement and mood of the surrounding views.



Tranquil interaction

The symbiotic relationship between the coast and its people are an important factor in the enjoyment of this coastal zone. Recreation activities with the seascape are part of the tradition of village life.

Experiential Qualities

- *The coastline provides extensive opportunities for outdoor recreation.*
- *Along the harbourside and continuing into the surrounding countryside there are extensive walks along the coastal paths, which allow open exposed views of the seascape.*
- *As the landscape is flat and open in character, noise can travel.*
- *During low tide only the main channels are accessible by boat.*
- *Tranquil area away from the main traffic areas.*

APPLICATION PROPOSALS

05

Langstone High Street

5. APPLICATION PROPOSALS

Aims and objectives of the proposed development

The Langstone FCERM scheme has been split into 5 frontage locations (see Figure 2).

The aims of the proposed development are: as stated within the Detailed Design Report (see Appendix E of the ES)

- *'To reduce the impacts of flooding and erosion on residents, businesses the local economy, and the A3023 at Langstone.*
- *To develop a detailed design that is affordable and represent best value for money, ensuring the optimal use of resources.*
- *To develop a detailed design which is acceptable, to the employer, statutory and non-statutory consultees,wider stakeholders, residents and to have engaged with the local community.*
- *Design buildable coastal defences that are sympathetic to the heritage and landscape of the area and achieve wider benefits such as place making, regeneration and improved amenity.*
- *Enhance and improve the environment and provide a minimum of 10% biodiversity net gain through the scheme.*
- *Actively seek efficiencies in design, construction and operation of the completed scheme.'*

The objectives for the Langstone FCERM Scheme are:

- *'To construct new coastal defences providing a present-day*
- *To reduce the erosion risk along the Frontages.*
- *To provide a scheme that is fully compliant with current standards, guidance and legislation relevant to the United Kingdom (UK) jurisdiction.*
- *To construct new coastal defences providing a present-day Standard of Protection (SoP) of 0.5% AEP from tidal still water for Langstone, including a freeboard for uncertainties. This SoP exceeds the minimum recommendation by the Portchester to Emsworth Strategy (1.3% AEP) at the outset (the SoP will decline over time as a function of sea level rise).*

Potential Impacts

The project has been developed to consider the likely significant effects and constraints. The design mitigation and enhancement measures undertaken shall look to either avoid, reduce, offset, remedy or compensate the potential effects on the landscape, visual amenity and the views.

The aims of mitigation are to ensure that the proposed development is in keeping with the local landscape character and makes the best use of the existing landscape features. This is influenced by the surrounding character of the landscape and the existing and potential viewers.

Enhancement measures identify enhancement opportunities to the project design that would in some way help to improve or restore both the landscape character and the visual amenity. Enhancement measures look to improve the landscape resource and the visual amenity of the proposed development and its wider setting, over and above the baseline condition.

Design Mitigation and Enhancement Measures

The proposed mitigation should focus on the following principles and the guidance in the management documents produced by the Borough Design Guide, Supplementary Guidance (Havant Borough Council 2011). Some of the key design measures in relation to this proposed development include:

Policy CS16 High Quality Design

Key points from this documentation

1. Responds to, draws inspiration from and respects local context

2. Produces a positive relationship between buildings, street and spaces both existing and proposed

3) Contributes to the improvement of the public realm close to the development

Chicester Harbour Area of Outstanding Natural Beauty, Joint Supplementary Planning Document (Havant Borough Council 2017);

Key points from this documentation;

Section 2.1

'To consider where the development will be seen in the wider landscape and from the water and demonstrate how any adverse impacts have been positively mitigated to conserve and enhance the AONB.'

Section 8.1;

'In designing the new development consideration should be given to both the proposal and its setting in the AONB landscape and how the scheme will contribute to the overall character of the area.'

Section 9.1

'Loss of garden space and boundary vegetation may lead to adverse impacts on local character and biodiversity. Existing hedges and trees should be preserved wherever possible. They may be important visual screens or the subject of statutory protection, for example a Tree Preservation Order.'

Section 9.4

'New planting should adequately mitigate the impact of the development and/ or the loss of natural features. Where trees are proposed to be removed a replacement ratio of 2:1 is advised (i.e. for every one tree felled, two must be planted), with replacements planted of an appropriate species and to heavy nursery standard.'

Section 10.1

'The choice of plants should be appropriate to the setting of the proposal in the wider AONB landscape. Native species typical of Chichester Harbour AONB should be used. The following are suggested for any landscaping scheme or proposed boundary planting.'

Even though these comments are in relation to buildings within the AONB, these design guidance issues should be adhered to for the construction of the flood defences and the introduction of any hard landscape materials:

Section 16.1

'The choice of colour and finish of materials can be one of the most important design factors in reducing the impact of the building on the landscape. Generally very light colours (such as white, cream and light grey) and large areas of intense strong colours do not blend well with the rural landscape of the AONB, which in general is characterised by subtler, darker colours.'

Section 16.3

'However, the use of lighter colours and render can be appropriate in some areas, where they reflect the general character of the surroundings, for example in the historic core of a village.'

Section 7.2

'The use of traditional, natural (preferably locally sourced) materials is generally more appropriate than man-made synthetic / pre-coloured materials, as these lack the variation in colour and texture found in natural materials.'

Mitigation during Construction

Construction phase environmental measures have been developed as part of the iterative design and to inform the detailed design process. These have been accounted for in the assessment of effects without mitigation. For landscape and visual matters, the construction phase and associated mitigation refers to the construction compounds, construction activity, machinery and processes to implement on the proposed development as set out within the methodology section. An outline of the construction details, procedures and equipment used on the different frontages is set out in Table D overleaf.

Likely General Impacts during Construction

Potential impacts on the landscape and visual receptors during the construction phase would result from the following:

- General construction activity and presence of associated machinery during the construction period;
- The location and use of the contractor compounds;
- Excavation and remodeling of surface landform, including large-scale earth movements and general disturbance
- Temporary lighting to support night-time working with site task lighting ;
- Hoarding and fencing associated with the construction works;
- Signage and features associated with traffic management measures;
- Topsoil is to be stored on-site in bunds within the site limits for re-use;
- Disruption to the existing network of woodland, hedgerow and other soft landscape features, including loss of vegetation and opening up of views towards the proposed development.
- Closure and diversion of PRoW and cycleroutes.

Mitigation at Operation

Mitigation measures have been developed as part of the iterative design. Outline operation mitigation measures are set out in Table E below.

Operation

The landscape and ecological mitigation has been designed so as to help to restore the landscape elements lost as a result of the proposed development, to integrate the proposed development sensitively within the adjoining landscape, to complement and reinforce the special characteristics of the surrounding landscape, to screen views of the proposed development from sensitive visual receptors, to limit and manage views from the wider landscape, to restore and bolster existing landscape elements, including the reconnection of fragmented landscape elements, and to diversify the range of landscape elements within the area.

As the mitigation measures establish over the operational phase (year 15), they would fulfill their intended functions in providing screening, landscape integration, amenity and soft estate improvements, leading to a reduction/mitigation of the adverse changes to landscape elements, visual amenity and landscape character resulting from the proposed development. They would lead to a

Table D: Outline of the engineering construction details, procedures and equipment

Location	Construction Details	Construction works
Frontage 1a	Defence Level 3.6m AOD length 165m	
	Close footpath	
	Fell trees and grind out roots	
	Excavate to formation of embankment either side of existing path using 5 tonne excavator.	Load material into a 9 tonne 360 degree swivel cab dumper
	Topsoil strip either side of path and set aside for reuse and import soil	Using a 9 tonne digger
Frontage 2	Defence Level 3.8m AOD length 120m	
	Excavate lead trench for sheet piles	35 tonne excavator
	Install all sheet piles	
Frontage 3	Ship Inn 3.8m AOD. Length 40m and Ship Inn Apron 3.8m AOD. Length 15m	
	Construction signage, Compound area for welfare, materials and plant. With the placement of screening adjacent to the Ship Inn.	
	Removal of surfacing along alignment	
	Create trench for drainage and install	
	Create embankment mound	
	Create new concrete wall (15m)	
	Excavate and import grade type 1	13 tonne excavator
	Install temporary flood defence – using tonne bags	
	Demolish existing wall, footing and create a trench	8 tonne excavator
	Install sheet piles and cladding	35 tonne excavator
	Backfill foreshore and pub seating area.	
	Seed and topsoil area	
Frontage 4	Close existing footpath	
	Excavate trench for sheet piles	8 tonne excavator
	Install sheet piles and cladding	35 tonne excavator
	Create new footpath	
	Creation of a new concrete wall with suitable cladding¬¬	
	Install handrail	
Frontage 5	Defence Level 3.8m AOD length 90m	
	Safety fencing outside Royal oak. Install Heras fencing in property garden.	
	Excavate slot drain	9 tonne dumper
	Excavate lead drain for sheet piles	8 tonne excavator
	Install sheet piles using Movax	35 tonne excavator
	Install masonry cladding and flood glass posts	
	Create new wall by footpath	
	Reinstate garden with topsoil and seed	

positive change to the condition and quality of the landscape within the proposed development boundary, improving the overall character and diversity of the soft estate of the proposed development within the local landscape setting. Full details of the construction activities can be found in the Compound Review and Detailed Design Report.

Assumptions and Limitations

Temporary adverse visual impacts due to construction material and stored materials. Within the construction compound there will be:

- Road signage and boundary treatments.
- Construction equipment.
- Provision of utilities such as water, drainage, power and lighting.
- Temporary parking.
- Noise and movement of vehicles in so far as it may affect the perception of tranquility in the landscape.
- Tree protection fencing installed around any root zones of trees or vegetation to be retained and protected, prior to any works commencing. Ensure that the trees outside the proposed development boundary are also protected.

Assumptions in assessing the impacts of the proposed development following construction relevant to the LVIA include the following:

- Proposed tree and shrub planting would range in height from 0.6-0.9 m for whips;
- Semi mature trees would be 4m in height
- Areas of amenity grassland/wildflower would not yet to be fully established.

Assumptions in assessing the impacts of the proposed development in the fifteenth year of operation (year 15) relevant to the LVIA include the following:

- Proposed tree and shrub planting would range in height from 5 to 6 m;

Table E:-Outline LVIA operation mitigation measures

Category	LVIA Mitigation measure
Primary measures - developed through the iterative design process, which have become integrated or embedded into the project	• The soil structures are protected where land would be used temporarily, such as for compounds, re-grading areas etc. so that when it is returned to the existing land use, it is in a suitable condition; compounds, re-grading areas etc. so that when it is returned to the existing land use, it is in a suitable condition; • Where possible the mature specimen trees and boundary buffer planting has been retained. Existing vegetation in the vicinity of new buildings creates a maturity of landscape that would otherwise be expensive to achieve and take decades to attain. • When choosing species of trees and shrubs for new planting, careful consideration was given to the soil and climatic conditions of the site. A study of the area and note of what species of plants that flourished in the area was undertaken. • The hard landscape elements specified sympathetically complement the surround architecture and elements in colour texture and detailing.
Standard Measures- construction and operational management practices for avoiding and reducing environmental effects	• To protect connectivity - Many creatures forage widely, and cannot survive in a small, isolated patch of habitat. Connecting links were retained between remaining patches of wood and meadow to help connectivity. • Buffer Strips - Buffer strips were retained were possible .Buffers should be fenced off to their full width prior to development. They will also need appropriate management after completion.
Secondary measures designed to address any residual adverse remaining after primary measures and standard construction practices have been incorporated into the scheme.	• Woodland screening was developed to achieve a layered structure. It will integrate and be managed in sympathy with the adjacent and nearby woodland. The species mix reflects the local character. • To enhance visual amenity the planting provides a variety of form, colour, texture.
Enhancement measures - improve the landscape resource over and above the landscape setting	• Ecological measures such as bee posts to be included along the route. • Addition of rich wildflower seeding within the scheme. • Diversification of the proposed native planting to encourage a more diverse wildlife corridor. • Enhance the landscape areas, with localised upgrades to green space, introduction of interpretation boards and benches • For additional nature conservation value, the woodland will be allowed the creation of a shrub and edge habitat. • Encourage the use of field margins for ecological benefits. • Manage grassland so that it will provide a more diverse ecological resource. • Enhance connectivity to harbour plain/ coastal park through green infrastructure.

ASSESSMENT OF LANDSCAPE EFFECTS

06

Bottom of Langstone High Street

6. ASSESSMENT OF LANDSCAPE EFFECTS

Baseline

This section deals with the assessment of the predicted landscape changes upon the identified landscape receptors that would be generated during the phased and overlapping construction and operational periods. For the purposes of this assessment the landscape and seascape character areas are considered together.

The landscape susceptibility sensitivity to ranges from High to Very High. There are national level designated areas (AONB) to the eastern section of the site.

The majority of the works are located within LCA 27 Langstone (Havant Borough Council, Landscape and Seascape Character Assessment). This is a low lying flat land with mature trees and woodland to the western boundary. The A3023 cuts through Langstone, and is noted as a nosy and physical barrier.

The areas is criss crossed by several PRoW, and long distance walking routes (Shipwrights Way, Solent Way and Wayfarers Way). Some skirt the harbour edge and these coastal paths allow sweeping views of the harbour basin and the island of Hayling. Langstone village contains multiple public rights of way and tourist walking routes which have been identified by Hampshire Country Council Some of the relevant pathways include:

• Shipwright Way runs from Farnham to Portsmouth passing through Langstone as part of a 5.5mile section.

• Wayfarers Walk is a 70 mile walk which runs from The Chalk Downs in Inkpen to Emsworth Harbour, traveling through Langstone Harbour along Mill Lane and the High Street. The walk continues along the coastline linking Langstone to Emsworth.

• Solent Way takes the same route as Wayfarers Walk. A predominantly coastline walk from Southampton to Emsworth traveling through Langstone.

• Havant Footpath. Route Number: 129. From Langstone High Street to foreshore east of The Ship Inn.

• Havant Bridleway. Route Number: 132 The Wadeway. (Cannot be accessed at high tide). From Langstone High Street southwards to North Hayling

The site is visited by a high number of people who come to experience this area due to the high quality of landscape, with the coastline providing extensive opportunities for outdoor recreation.

An important component are the distinctive elements and features. The flat landform and the agricultural plain contribute to the open, vast, calming nature of the shorescape. While the port has now established itself as a recreational area, supporting sea-based industries.

The condition of the landscape is maintained to a high quality and has been afforded protection status of a highly valued landscape. This also includes the historic core of Langstone village, with its numerous listed buildings.

Some examples of the types of landscape character can be seen on the Field Study Sheets overleaf.

Landscape Construction Effects

The viewers immediately adjacent to the site, residential receptors,outdoor workers, and recreational users would be impacted upon during the construction phase. Residents of Langstone village seafront would have direct views of the construction.

During the construction period, landscape changes would be generated by activities such as the operation of construction plant, introduction of contractor's compounds, storage areas, security fencing and signage; and the associated construction traffic movements which would be transient and temporary in nature. Machinery used on the development site is out lined in Table D Construction operation details and equipment, Chapter 5

Construction activities such as vegetation clearance, building of structures and earth movements, would result in a disruptive character to the local landscape during the works.

The temporary construction compound, working areas (including welfare facilities, site office, parking storage) would also bring temporary uncharacteristic detractors into the local character area. Currently the compound location and access routes as discussed with Mackley, who are providing Early Contractual Involvement (ECI) advice.

The main compound will be located in Langstone Meadows on Hampshire County Council land.This will contain the main site offices, car park and material storage area.

This would require some :

- Localised trimming of trees along Langstone Avenue, to allow access to site compound.
- Trimming of trees at entrance point into the field. Trees will require trimming / siding up at the entrance to the field to enable lorry access to deliver the site offices/welfare and import stone for construction of the access track.
- Some localised widening of hedgerows to facilitate access.
- Closure of Public footpath when works to the Frontage 5 embankment are being undertaken.
- 59 and 61 Langstone Road- These properties are currently under development, however may be occupied when construction starts. Heras fencing lined with acoustic matting or temporary timber hoarding could be erected between the access track and the northern property boundary to limit noise and light disturbance from site traffic.
- 63 Langstone Road - The access track runs past the side of the property which is quite exposed. Heras fencing lined with acoustic matting or temporary timber hoarding could be erected between the access track and the northern property boundary to limit noise and light disturbance from site traffic.
- Langstone Lodge -The main compound car park will be visible from the house and the eastern boundary of the garden is fairly unscreened, however the site offices/welfare would be screened by the hedgerow, providing they are single storey as planned. Heras fencing lined with acoustic matting or temporary timber hoarding could be erected between the access track and the northern property boundary to limit noise and light disturbance from site traffic.

The Ship Inn satellite compound is required to store plant, such as excavators and dumpers for the construction works. It also is required to store non bulk materials for the works. It is proposed that it also has some welfare and a temporary visitors information centre. There will be an additional comound in the Sailing Club compound for the construction of Frontage 1A.

Construction effects would be largely temporary, in part reversible and intermittent throughout the construction phase. The latest ECI programme indicates that works will be undertaken over two summers, with some limited landworks being undertaken over winter.

During the construction phase, temporary floodlighting might be necessary during winter months. Temporary and security lighting in the contractor's compound and car park areas is also to be expected.

The negative effects of construction related lighting can be reduced or eliminated both through appropriate design and construction management practices and these include:

- Specified working hours;
- Sheltered location of floodlights and construction compound away from the potential receptors switched off automatically using a timer;
- Glare should be avoided by positioning lights at less than 70 degrees and directing into the center of the development Site; and
- Sky glow from modern flood lights would be minimised with appropriate shields to avoid light spilling upwards.
- Requirements of the Ecological Impact Assessment.

Mitigation at the construction phase would be limited to construction best practice as set out in the Construction Environmental Management Plan (CEMP). Measures could include features such as secure perimeter fencing, screen bunds, where appropriate and maintaining a tidy site.

The sensitivity of the receptor at construction stage would be high,as this area has low capacity to absorb some of the effects of the development.

The magnitude of effect at construction stage would be minor/slight. This is due to the location of the development and the quality and components of the landscape. This would also involve a partial loss or alteration to key characteristics of the character and/or setting of the character area. However the construction works would only be experienced for a limited time.

The impact would be moderate. This would not be significant.

Landscape Operational Effects

On completion of construction the development would be within direct view of the residential/recreations (land and sea based) users. The majority of the development requires hard landscape mitigation measures.

- The hard landscape materials specified sympathetically complement the surrounding architecture and elements in colour, texture and detailing.
- They are appropriate to their surroundings, historic context and respect the local traditions. The surface treatments respect the urban, suburban and rural character as appropriate. Where appropriate some of the stone has been retained and reinstated.
- The street furniture was carefully and thoughtfully co-ordination. Consultation was carried out the LPA Conservation Officer to ensure they are appropriate to the Conservation Areas and Listed Buildings. Materials, size and form were inspired by the surrounding context, with existing building and pavement lines used to guide their placing. They helped to reinforce local character and create a sense of place.
- Reopening of PRoW, cycleroutes and long distance walking routes. The majority of the routes following construction will be reopened on the original alignment. There will be minor realignments of the Billy Line South (in F2) and the footpath around Green Cottage (F4) - but still all providing the same access Their opening may be phased.
- At Year 15 the mitigation planting would have matured. In addition, new tree planting/shrub, wildflower seeding would add to the sense of place, reinforce the local character and increase the biodiversity of the local landscape.

Throughout the ages historic areas have adapted to changing circumstances, and will continue to do so. The presence of the development would have by year 15 softened and almost amalgamated into the surrounding area. The design has been approached with understanding and sensitivity, and by Year 15 would not affect the character or sense of place.

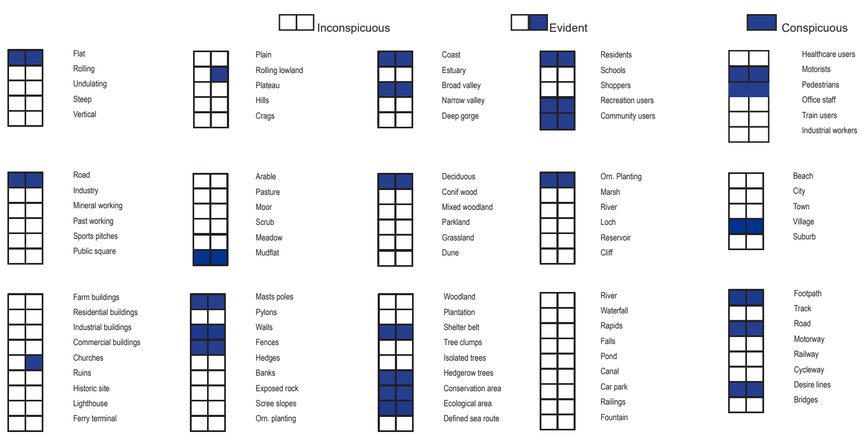
The sensitivity of the receptor at operation stage would be very high. The magnitude of effect operation stage would be negligible. The impact would be neutral. This would not be significant.



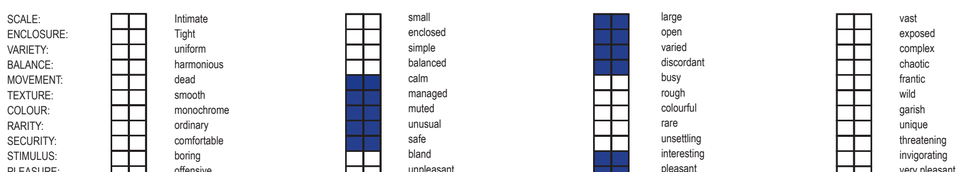
Costal fringe of Langstone Village

Surveyor: SF,	**Date:** May 2022	**Description Summary:** Shingle beach located on the edge of the Langstone village. Residential and recreational premises on the seafront.
Weather: Sunny	**Direction of View:** North	**Significant Seasonal Factors:** Limited vegetation on the seafront. Ornamental planting to garden boundaries. No significant seasonal factors.

OBJECTIVE CHECKLIST Record what is relative by making relevant words thus:



SUBJECTIVE CHECKLIST Record your immediate impressions by marking the box nearest to the most appropriate word



LANDSCAPE CHARACTER/SCALE:

- Historic development are located to the harbour frontage.
- Medium distant views into the heart of Langstone Village
- Interesting and attractive collection of buildings within the village.

COMMENTS: e.g. noteworthy landscape elements

- Intertidal landscape, that impacts on the mood of the surrounding areas.
- An important symbiotic relationship between the landscape coast and its people.
- The flat land form and open views of the coast provide a calming influence on the shorescape.



Chichester Harbour near the Ship Inn

Surveyor: SF, **Weather:** Sunny	**Date:** May 2022 **Direction of View:** South East	**Description Summary:** Ship Inn on the edge of Chichester Harbour looking towards Hayling Island and Langstone Bridge. **Significant Seasonal Factors:** Limited vegetation on the seafront. Some isolated bands of mature scots pine. No significant seasonal factors.

OBJECTIVE CHECKLIST Record what is relative by making relevant words thus:

Inconspicuous / Evident / Conspicuous

Flat Rolling Undulating Steep Vertical	Plain Rolling lowland Plateau Hills Crags	Coast Estuary Broad valley Narrow valley Deep gorge	Residents Schools Shoppers Recreation users Community users	Healthcare users Motorists Pedestrians Office staff Train users Industrial workers
Road Industry Mineral working Past working Sports pitches Public square	Arable Pasture Moor Scrub Meadow Mudflat	Deciduous Conif.wood Mixed woodland Parkland Grassland Dune	Orn. Planting Marsh River Loch Reservoir Cliff	Beach City Town Village Suburb
Farm buildings Residential buildings Industrial buildings Commercial buildings Churches Ruins Historic site Lighthouse Ferry terminal	Masts poles Pylons Walls Fences Hedges Banks Exposed rock Scree slopes Orn. planting	Woodland Plantation Shelter belt Tree clumps Isolated trees Hedgerow trees Conservation area Ecological area Defined sea route	River Waterfall Rapids Falls Pond Canal Car park Railings Fountain	Footpath Track Road Motorway Railway Cycleway Desire lines Bridges

SUBJECTIVE CHECKLIST Record your immediate impressions by marking the box nearest to the most appropriate word

SCALE:	Intimate	small	large	vast
ENCLOSURE:	Tight	enclosed	open	exposed
VARIETY:	uniform	simple	varied	complex
BALANCE:	harmonious	balanced	discordant	chaotic
MOVEMENT:	dead	calm	busy	frantic
TEXTURE:	smooth	managed	rough	wild
COLOUR:	monochrome	muted	colourful	garish
RARITY:	ordinary	unusual	rare	unique
SECURITY:	comfortable	safe	unsettling	threatening
STIMULUS:	boring	bland	interesting	invigorating
PLEASURE:	offensive	unpleasant	pleasant	very pleasant

LANDSCAPE CHARACTER/SCALE:

- Long views over a flat and low lying landscape
- Open vast calm shore scape landscape
- Changes in the tidal landscape create varying landscapes

COMMENTS: e.g. noteworthy landscape elements

- Historic coastal;port and commercial development
- Intertidal mudflat and salt marsh habitat

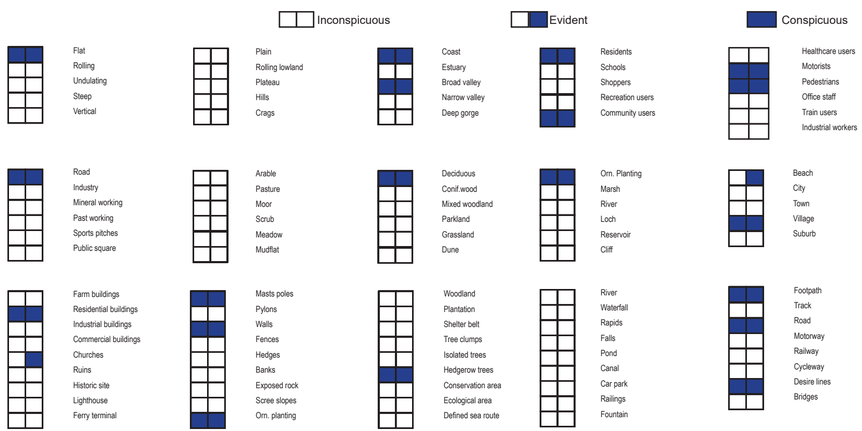
FIELD STUDY SHEETS: LANDSCAPE



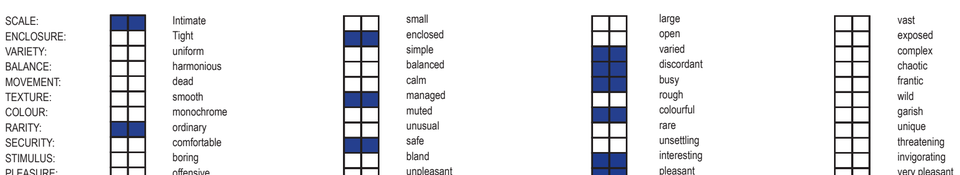
Langstone High Street

Surveyor: SF, **Weather:** Sunny	**Date:** May 2022 **Direction of View:** North	**Description Summary:** Langstone high street consists of residential properties **Significant Seasonal Factors:** Ornamental planting to garden boundaries. No significant seasonal factors.

OBJECTIVE CHECKLIST Record what is relative by making relevant words thus:



SUBJECTIVE CHECKLIST Record your immediate impressions by marking the box nearest to the most appropriate word



LANDSCAPE CHARACTER/SCALE:

- A mix of modern and older style residential properties away from the sea front.
- Well maintained properties
- Limited off road parking.
- Low lying topography limits views out.
- Building styles complement each other.

COMMENTS: e.g. noteworthy landscape elements

- Gardens are well maintained with some blocks of ornamental planting to the property edge.

FIELD STUDY SHEETS: SEASCAPE



Mudflats

Project: Langstone FCERMS	**Date:** 11/10/2 **Surveyor:** SF	**Weather:** Sunny, clear **Visibility :** Sunny, clear **Direction of View:** South west

Marine Character: -The seascape is regarded by many as an outstandingly beautiful area and is designated for its protection of its scenic value.

Coastal character: Langstone harbour village, low lying and flat. Previously the village was a port with mills but this has been replaced with tourism and leisure. The commercials and formal industrial buildings have been converted for holiday and leisure use. Various phases of residential development. Stretching between the dense residential areas of north Langstone to the west,and Emsworth to the east, this LCA provides a distinctive, largely rural area of coastline within a largely built up area

Character of Hinterland: Extensive and flat or gently sloping plain. Windswept trees near the cost with tree shelter belts and low hedgerows. This is predominantly a large scale intensive arable farmland landscape.

Seascape Character and Condition: The harbour entrance channel, Langstone Channel (up to Bedhampton) and Broom Channel are currently dredged for navigational purposes. Langstone was a port until 1914 and approach channels within the harbour were dredged over the period 1882-1914.

PHYSICAL FORM - Marine

Tidal dynamics Tidal range	Max Range	Intertidal Zone Broad/Moderate/Narrow Shallow tidal basins	Tidal State; Ebb, Flow, Full, Low HWTM: LWTM: The flood duration is 7.1 hours, that of the ebb 5.7 hours.	Observations flooding a sequence of low relief valleys draining the coastal plain. From the east, open views from the harbour edge out across the harbour.
Tidal features	Max Range	The estuary entrances are very narrow, so that waves generated outside cannot penetrate far into the harbour. Intedidal sediment transport and sedimentation processes therefore differ markedly from that at the open coast because tidal currents are the major mechanism and wave action is relatively insignificant due to limited fetch.		

PHYSICAL FORM - Coastline

Costal geometry	Straight	Shallow A sequence of low relief valleys draining the coastal plain	Deep Bay	Convex	General aspect of the coast	
Islands	The four main harbour islands are remnants of low interfluve divides, located on a locally slightly more resistant clay substrate.					
Coastal Form	Low lying - Long open views out across the harbour. Wind swept landscape adjacent to the harbour edge connects to open character	Low cliffs of rocks	Cliff heights	Dunes	Other	Typical minimum height: Typical maximum height:
Predominant nature of shore	Mud	Sand composed of sandy mud	Shingle	Boulders/pebbles	Solid bedrock	Other shell debris and some patchy gravels.
Notable Physical features and conditions	Mudflats with occasional hummocks, these comprise of clay, silt, fine sand and organic matter.. These have become relatively stable due to the colonisation of algae.					

PHYSICAL FORM - Hinterland

Surrounding Hinterland	Flat	Gently undulating The landscape is flat and open in character.	Steep	Altitude range
Land cover	Throughout the built environment there are organic patterns of vegetation development along the stream side. This ranges from dense woodland to the more open habitat of grassland and scrub. Small pockets of woodland are located in between the housing developments and along the recreational routes. Significant planting belts can be found around Langstone meadows and Wade Court Park. Limited tree planting along the Solent Way.			
Land use	The historic development core lies to the harbour frontage with the newer developments and the industries being developed to the rear. Langstone was a coastal port that served the agricultural hinterland. The port has now re-established itself as a recreational area, supporting sea-based industries.			

ACTIVITY SURVEY - SEA AND COAST

Sea based activity - note pattern and condition

Recreation	Day sailing, competitive sailing, canoeing
Shipping	
Commercial	
Fishing	
Other	

Coast line activity - note pattern and condition

Settlement/habitation	
Recreational	
Commercial	
Other	

SUBJECTIVE CHECKLIST Record your immediate impressions by marking the box nearest to the most appropriate word

SCALE:		intimate		small	■	large		vast
ENCLOSURE:		tight		enclosed	■	open		exposed
DIVERSITY:		uniform		simple	■	varied		complex
BALANCE:		harmonious	■	balanced		discordant		chaotic
MOVEMENT:		organised	■	calm		busy		frantic
PATTERN		smooth	■	managed		rough		wild
FORM		sloping		rolling	■	horizontal		sheer
RARITY:		ordinary		unusual		rare	■	unique
SECURITY:		comfortable	■	safe		unsettling		threatening
STIMULUS:		boring		bland		interesting	■	invigorating
PLEASURE:		offensive		unpleasant		pleasant	■	very pleasant

Field Survey sheet an extract from : Guide to best practice in Seascape Assessment- Brady, Shipman and Martin 2001

ASSESSMENT OF VISUAL EFFECTS

07

No 15 Langstone High Street

7. ASSESSMENT OF VISUAL EFFECTS

Baseline

This section deals with the assessment of the predicted visual amenity upon the identified landscape visual receptors that would be generated during the phased and overlapping construction and operational periods.

The baseline assessment was carried out during May 2022, when vegetation was in leaf.

Mitigation has been addressed as part of the design and is considered during the assessment process. The sensitivity of the visual receptors to changes resulting from the proposed development has been described on the viewpoint photos sheets in the following pages.

The operational phase assessment considers the short-term, medium- and long-term effects of the proposed development during construction and from the end of the construction period to the fifteenth year of operation, whilst the proposed landscape and ecological mitigation is establishing.

Landscape mitigation measures developed as part of the design process identified opportunities to reduce the adverse effects and to ensure that the proposed development is better embedded into the landscape setting. These mitigation measures would be considered in the assessments.

For the purposes of this assessment the operation assessment has been undertaken at Year 15 summer when the proposed screening will have reached a good level of maturity and vegetative cover will be at an optimum.

Photosheets can be found in Annex K.

Construction Assessment

For the construction phase,Major effects are generally considered to be significant, Moderate effects may be considered to be significant, Minor and Negligible effects are generally not considered to be significant.

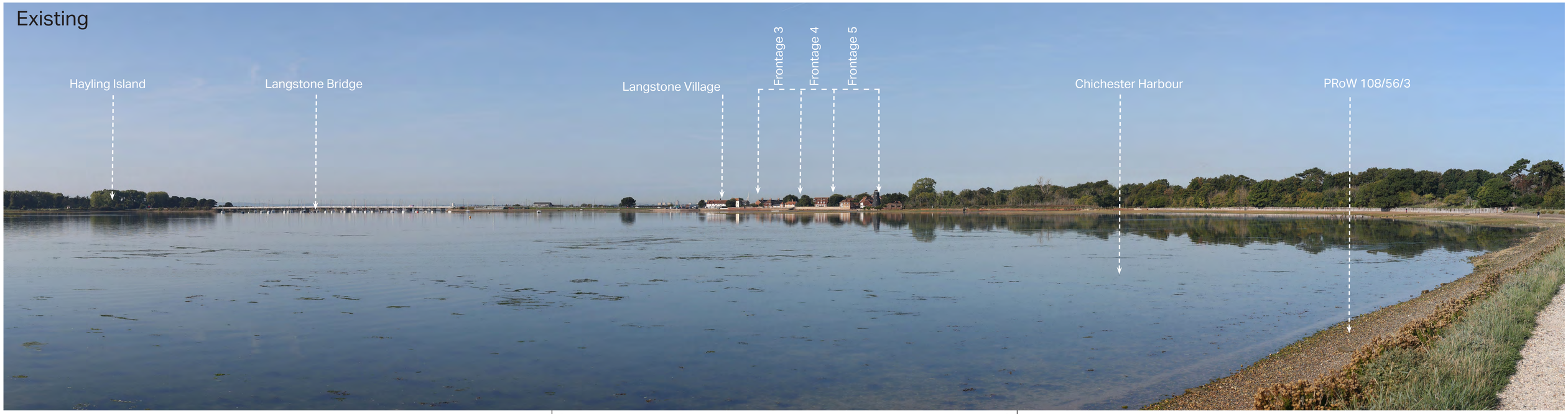
Field Study Sheets can be found In Chapter 6 and an assessment of the visual effects on the receptors are found in this chapter.

The operational phase assessment considers impacts, from the end of the construction period to the fifteenth year of operation, During this time the proposed landscape and ecological mitigation are establishing.

Landscape mitigation measures have been developed as part of the design process, with opportunities identified and developed to reduce the adverse effects and to ensure that the Site is better situated into the landscape setting. These mitigation measures will be integral to the Site and have been suggested within each of the viewpoint assessments.

V1

Existing



Extent of 50mm single frame image (27° field of view in portrait)

45° 40° 35° 30° 25° 20° 15° 10° 5° 0° 5° 10° 15° 20° 25° 30° 35° 40° 45°

Proposed (Year 15)



Extent of 50mm single frame image (27° field of view in portrait)

45° 40° 35° 30° 25° 20° 15° 10° 5° 0° 5° 10° 15° 20° 25° 30° 35° 40° 45°

AECOM Delivering a better world

Langstone Costal Defence
Viewpoint 1

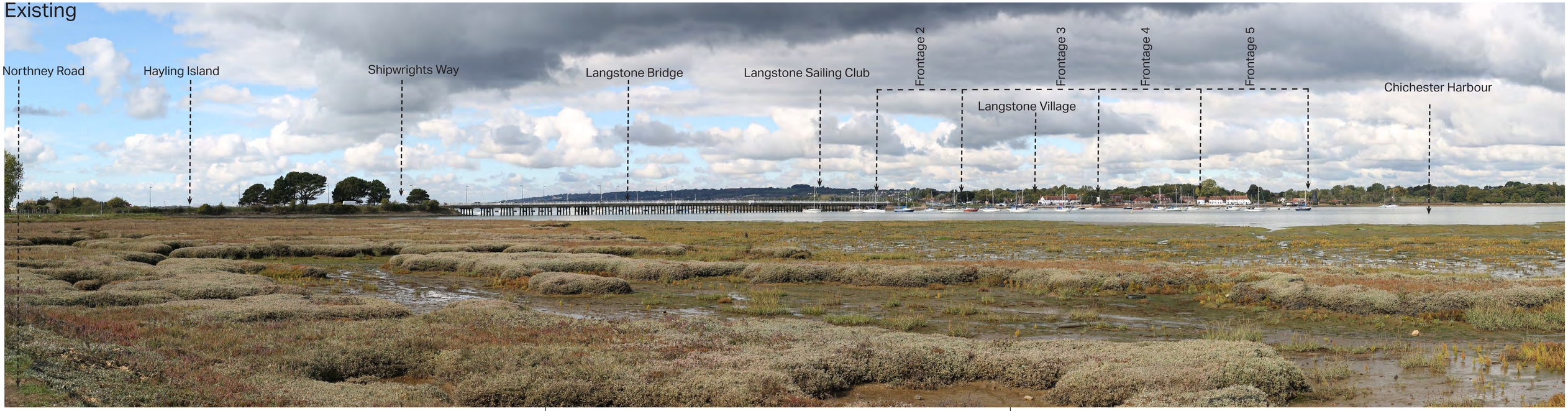
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Assessment of the Visual Effects on the Visual Receptors from Viewpoint 1					
Photo details **Direction of View; South west** **Distance to Site: 728m**					
Location – See Figure 1, Viewpoints Location Plan	The view was taken from Solent way (PRoW 108/56/3). The path crosses arable fields and then runs along the shoreline of Chichester Harbour towards the village of Langstone in the west. The A27 runs along the northern section of this pocket of agricultural land.				
Landscape Character/Scale	This is an agricultural and recreation landscape sandwiched between residential and commercial zones to the north, east and west. It is a tidal estuarine environment framed by low-lying coastal plain. The harbour coastline has distinctive tidal channels that lead to a maze of inlets that criss cross the expanses of saltmarsh and mudflats. The shoreline is fringed by wind-sculpted oaks and scrub, with open agricultural fields bounded by hedgerows.				
Foreground	Foreground views are of Chichester Harbour. The harbour is now used for recreational sailing, paddle boarding, kayaking and swimming. There is an arching shingle beach with wide open views across to the bay.				
Midground	This is a tidal estuarine environment. Chichester Harbour lies between the village of Langstone and Fowley Island. Deeper in the bay is an area called Sweare deep which are a series of tidal sands.				
Background	Hayling Island can just be seen in the background with Langstone Bridge just visible on the horizon. The village of Langstone can be seen to the west and Hayling Island to the southwest. Beyond this lies North and Bridge Lake and Bakers Island just west of Farlington Marshes.				
Receptor Type	**Receptor Sensitivity**	**Magnitude of Impact**		**Significance of Effect**	
		Construction	**Operation** *(Year 15 Summer/Winter)*	**Construction**	**Operation** *(Year 15 Summer)/Winter)*
Transient receptors – PRoW users	Very High	Negligible	None	Negligible adverse	Neutral
Comments on the Assessment of Potential Visual Effects	**Construction** **Summer and Winter** There are no intermittent bands of vegetation that would determine a different impact in either the summer or winter during construction. The construction of Frontage 3, 4 and 5 will be seen at a distance from this viewpoint and may be visible depending ¬-on the type and nature of the construction methods and equipment used. For the construction of Frontage 4 and 5 a trench will be excavated to install the sheet piles and cladding. This will involve the use of a 35-tonne excavator. Frontage 3 will involve the demolition of the existing wall and the installation of a trench. There would only be a small distant change in the existing view during construction phase from this viewpoint. The Magnitude of Impact during construction will be negligible, as from this distance the works will be barely perceptible. The Significance of Effects from this distance would be a barely perceptible impact on the characteristic elements and features of the view. **Operation Year 15** **Summer and Winter** There is no intermittent bands of vegetation that would determine a different impact in either the summer or winter during operation. Even though the PRoW receptor is very highly susceptible to change and with a specific interest in the view, by year 15 any distant changes would blend in with the characteristic elements and features and maintain the sense of place is maintained. The Proposed development would not be visible to the receptor and would represent an indiscernible change in the baseline situation. The Magnitude of Impact during operation Year 15 is none. From this distance there would look like there is no change to the baseline condition. The Significance of Effect would be neutral, from this distance and within the wider view the character of the view has been maintained.				
Mitigation Strategy: *screening, on and off site planting, ground modeling, design modifications, alternative materials, colors*	**Overall mitigation measures to that section of frontage.** **Frontage 3** 1. Proposed retaining wall and hand railings along the steps and ramp. 2. New retaining wall to be brick cladded. 3. New ramp, steps and handrails to be consistent with the overall landscape strategy. 4. Potential for interpretation boards, seating, wayfinding. 5. Opportunity to integrate seating as part of a flood defence wall. 6. New planters to the car park.			**Frontage 4** 1. Proposed guardrails with chain access for kayaks and boats. 2. Resurface existing pathway to match proposed pathway. 3. Historic Langstone Wadeway - opportunity for interpretation panel on land near here to explain history **Frontage 5** 1. Integrate seating and pathway resurfacing. 2. New earth embankment and reinstatement areas grass seeded to agricultural use. 3. New tree planting and native hedgerow.	
Mitigation Cross Reference	Frontage 3 • LANDSCAPE LAYOUT - LANG-ACM-LS-F3-DR-LA-011022 • SITE CLEARANCE PLAN - LANG-ACM-SC-F3-DR-ZZ-011032 • GENERAL ARRANGEMENT- LANG-ACM-ZZ-F3-DR-ZZ-011301 • TYPICAL DETAILS SHEET 1 SHIP INN CAR PARK- LANG-ACM-ZZ-F3-DR-ZZ-051304 • TYPICAL DETAILS SHEET 2 A3023 AND SHIP INN CAR PARK- LANG-ACM-ZZ-F3-DR-ZZ-051305 • TYPICAL DETAILS SHEET 3 SHEET PILE WALL AND SHIP INN ANNEX- LANG-ACM-ZZ-F3-DR-ZZ-051306 Frontage 4 • LANDSCAPE LAYOUT - LANG-ACM-LS-F4-DR-LA-011023 • SITE CLEARANCE PLAN - LANG-ACM-SC-F4-DR-ZZ-011033 • GENERAL ARRANGEMENT- LANG-ACM-ZZ-F4-DR-ZZ-011401 • FRONTAGE 4 TYPICAL DETAILS SHEET 1 WATCHTOWER - LANG-ACM-ZZ-F4-DR-ZZ-051403 • FRONTAGE 4 TYPICAL DETAILS SHEET 2 WATCHTOWER STEPS - LANG-ACM-ZZ-F4-DR-ZZ-051404 • FRONTAGE 4 TYPICAL DETAILS SHEET 3 GREEN COTTAGE ANNEX - LANG-ACM-ZZ-F4-DR-ZZ-051405 • TYPICAL DETAILS SHEET 4 GREEN COTTAGE - LANG-ACM-ZZ-F4-DR-ZZ-051406 • TYPICAL DETAILS SHEET 5 GREEN COTTAGE GATE - LANG-ACM-ZZ-F4-DR-ZZ-051407 • TYPICAL DETAILS SHEET 6 THE FLINT WALL - LANG-ACM-ZZ-F4-DR-ZZ-051408 • TYPICAL DETAILS SHEET 7 WINKLEMARKET - LANG-ACM-ZZ-F4-DR-ZZ-051409 • TYPICAL DETAILS SHEET 8 WINKLEMARKET AND FLINT WALL TIE IN DETAILS - LANG-ACM-ZZ-F4-DR-ZZ-051410 •			**Frontage 5** • LANDSCAPE LAYOUT - LANG-ACM-LS-F5-DR-LA-011024 • SITE CLEARANCE PLAN - LANG-ACM-SC-F5-DR-ZZ-011034 • GENERAL ARRANGEMENT- LANG-ACM-ZZ-F5-DR-ZZ-011501 • TYPICAL DETAILS SHEET 1 HIGH STREET AND ROYAL OAK - LANG-ACM-ZZ-F5-DR-ZZ-051504 • TYPICAL DETAILS SHEET 2 ROYAL OAK NORTH AND ALLOTMENT - LANG-ACM-ZZ-F5-DR-ZZ-051505 • TYPICAL DETAILS SHEET 3 EMBANKMENT - LANG-ACM-ZZ-F5-DR-ZZ-051506	

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V2

Existing



Extent of 50mm single frame image (27° field of view in portrait)

45° 40° 35° 30° 25° 20° 15° 10° 5° 0° 5° 10° 15° 20° 25° 30° 35° 40° 45°

Proposed (Year 15)



Extent of 50mm single frame image (27° field of view in portrait)

45° 40° 35° 30° 25° 20° 15° 10° 5° 0° 5° 10° 15° 20° 25° 30° 35° 40° 45°

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Langstone Costal Defence
Viewpoint 2

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Assessment of the Visual Effects on the Visual Receptors from Viewpoint 2

Photo details
Direction of View: North west
Distance to Site: 775m

Location – See Figure 2, Viewpoints Location Plan	This viewp was taken just off Northney Road on Hayling Island, looking north west towards the village of Langstone.
Landscape Character/Scale	This is an estuarine landscape. The tidal range is typically between 4 and 5m on the spring tides. This leaves an extensive intertidal area between the harbours. A considerable area of the boroughs sea front had been modified as a result of sea protection measures. Skirting the harbour edge are coastal paths that allow sweeping views of the harbour basin and the island of Hayling.
Foreground	In the foreground is Northney Road. This gives access through and along the edge of the island. To the east is the sheltered Northney Marina with associated infrastructure, with recreational as well as commercial premises. The marina is protected by a sea wall. To the west lies Langstone Bridge which provides access between Hayling Island and the mainland. Vegetation consists of specimen mature coniferous and native deciduous buffer planting. There are some areas of recreational seating along the seafront. The coastal vegetation consists of coastal saltmarsh and saline reedbeds.
Midground	To the mid ground are the mud flats to the edge of Sweare Deep, which is an estuarine tidal inlet. During low tide several the mudflats become visible and can be accessed. Clusters of mature evergreen conifers can be seen to the midground. A PRoW (108/132/1) allows a route across the tidal mudflats with the tide is out. This is referred to as a wadeway.
Background	The village of Langstone can be seen in the background with Langstone Bridge (A3023) linking the village to the Hayling Island. The boat masts from Langstone Sailing club can be seen in the distance. The distant land rises near Southwick and Cosham in the west. Along the bridge is a long-distance route (Shipwrights Way) which goes between Hayling Island to Portsmouth. This is a 50-mile-long distance path for walkers, cyclists, and horse riders.

Receptor Type	**Receptor Sensitivity**	**Magnitude of Impact**		**Significance of Effect**	
		Construction	**Operation** *(Year 15 Summer/Winter)*	**Construction**	**Operation** *(Year 15 Summer)/Winter)*
Transient receptors – Northerly Road	Medium	Minor	Negligible	Negligible adverse	Neutral

Comments on the Assessment of Potential Visual Effects

Construction
Summer/Winter
There are no intermittent bands of vegetation that would determine a different impact in either the summer or winter during construction. The construction of Frontage 2, 3, 4 and 5 will be seen at a distance from this viewpoint and may be visible depending on the type and nature of the construction methods and equipment used. For the construction of Frontage 4 and 5 a trench will be excavated to install the sheet piles and cladding. This will involve the use of a 35-tonne excavator. Frontage 3 will involve the demolition of the existing wall and the installation of sheet piling.
There would only be a small distant change in the existing view during construction phase.
The Magnitude of Impact during construction will be minor, as from this distance the works will be barely perceptible. The Significance of Effects would be negligible adverse as there would be a barely perceptible impact on the characteristic elements and features of the landscape. Construction equipment would be seen from a distance and would be barely perceptible within the wider view.
Even though the visual receptors are transient road users, they are users of a scenic road, where the view is only part of the reason for the visit.

Operation Year 15
Summer/Winter
There are no significant intermittent bands of vegetation that would determine a different impact in either the summer or winter during operation. By year 15 the changes would blend in with the characteristic elements and features and the sense of place is maintained. The proposed development would not be visible to the receptor and would represent an indiscernible change in the baseline situation.
The Magnitude of Impact during operation Year 15 is negligible. From this distance there would look like there is no change to the baseline condition. The Significance of Effect would be neutral, from this distance and within the wider view the character of the view has been maintained.

Mitigation Strategy: *screening, on and off site planting, ground modeling, design modifications, alternative materials, colors*

Overall mitigation measures to that section of frontage.

Frontage 2

1. Proposed widening of shared cycleway/pathway from 1.9m to 3m to comply with highway standards.
2. Ecological measures such as bat boxes to be included along the route.
3. Potential to enhance landscape, green space, footpaths, and benches.
4. Opportunity for wayfinding, interpretation boards and benches.
5. Reinstatement areas along improved shared cycleway/pathway to include species rich wildflower seeding, hedgerow and coastal meadow.

Frontage 3

1. Proposed retaining wall and hand railings along the steps and ramp.
2. New retaining wall to be brick cladded.
3. New ramp, steps and handrails to be consistent with the overall landscape strategy.
4. Potential for interpretation boards, seating, wayfinding.
5. New planters to the car park.

Frontage 4

1. Proposed guardrails with chain access for kayaks and boats.
2. Resurface existing pathway to match proposed pathway.
3. Historic Langstone Wadeway - opportunity for interpretation panel on land near here to explain history

Frontage 5

1. Integrate seating and pathway resurfacing.
2. New earth embankment and reinstatement areas grass seeded to agricultural use.
3. New tree planting and native hedgerow.

Mitigation Cross Reference

Frontage 2

- LANDSCAPE LAYOUT - LANG-ACM-LS-F2-DR-LA-011021
- SITE CLEARANCE PLAN - LANG-ACM-SC-F2-DR-ZZ-011031
- GENERAL ARRANGEMENT- LANG-ACM-ZZ-F2-DR-ZZ-011201
- TYPICAL DETAILS SHEET PILE WALL ALTERNATIVE - LANG-ACM-ZZ-F2-DR-ZZ-051204
- TYPICAL DETAILS SHEET PILE WALL ALTERNATIVE- LANG-ACM-ZZ-F2-DR-ZZ-051205
- TYPICAL DETAILS SHEET PILE WALL ALTERNATIVE- LANG-ACM-ZZ-F2-DR-ZZ-051206

Frontage 3

- LANDSCAPE LAYOUT - LANG-ACM-LS-F3-DR-LA-011022
- SITE CLEARANCE PLAN - LANG-ACM-SC-F3-DR-ZZ-011032
- GENERAL ARRANGEMENT- LANG-ACM-ZZ-F3-DR-ZZ-011301
- TYPICAL DETAILS SHEET 1 SHIP INN CAR PARK- LANG-ACM-ZZ-F3-DR-ZZ-051304
- TYPICAL DETAILS SHEET 2 A3023 AND SHIP INN CAR PARK- LANG-ACM-ZZ-F3-DR-ZZ-051305
- TYPICAL DETAILS SHEET 3 SHEET PILE WALL AND SHIP INN ANNEX- LANG-ACM-ZZ-F3-DR-ZZ-051306

Frontage 4

- LANDSCAPE LAYOUT - LANG-ACM-LS-F4-DR-LA-011023
- SITE CLEARANCE PLAN - LANG-ACM-SC-F4-DR-ZZ-011033
- GENERAL ARRANGEMENT- LANG-ACM-ZZ-F4-DR-ZZ-011401
- FRONTAGE 4 TYPICAL DETAILS SHEET 1 WATCHTOWER - LANG-ACM-ZZ-F4-DR-ZZ-051403
- FRONTAGE 4 TYPICAL DETAILS SHEET 2 WATCHTOWER STEPS - LANG-ACM-ZZ-F4-DR-ZZ-051404
- FRONTAGE 4 TYPICAL DETAILS SHEET 3 GREEN COTTAGE ANNEX - LANG-ACM-ZZ-F4-DR-ZZ-051405
- TYPICAL DETAILS SHEET 4 GREEN COTTAGE - LANG-ACM-ZZ-F4-DR-ZZ-051406
- TYPICAL DETAILS SHEET 5 GREEN COTTAGE GATE - LANG-ACM-ZZ-F4-DR-ZZ-051407
- TYPICAL DETAILS SHEET 6 THE FLINT WALL - LANG-ACM-ZZ-F4-DR-ZZ-051408
- TYPICAL DETAILS SHEET 7 WINKLEMARKET - LANG-ACM-ZZ-F4-DR-ZZ-051409
- TYPICAL DETAILS SHEET 8 WINKLEMARKET AND FLINT WALL TIE IN DETAILS - LANG-ACM-ZZ-F4-DR-ZZ-051410

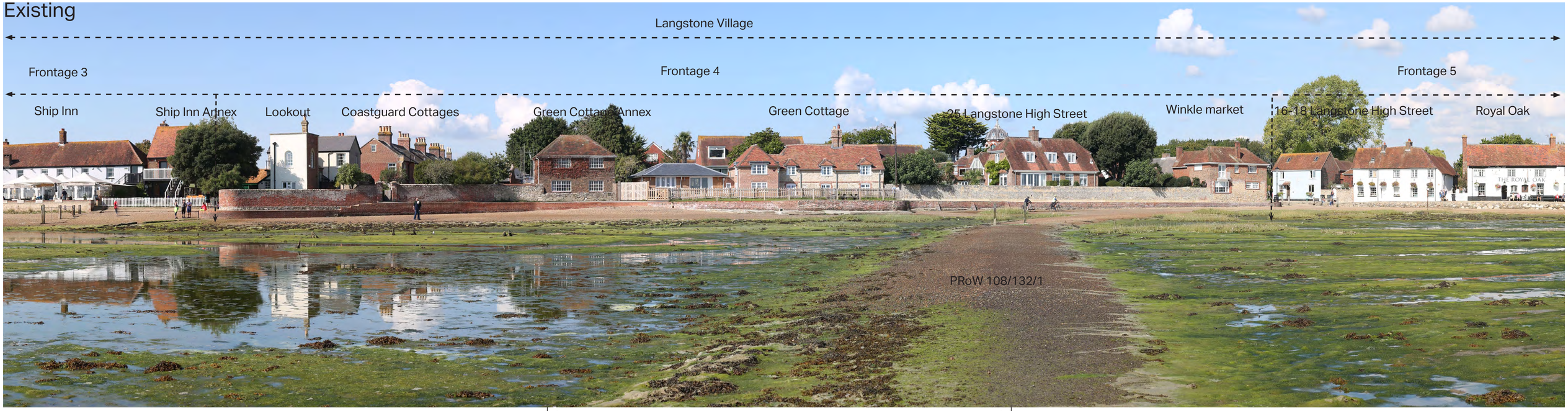
Frontage 5

- LANDSCAPE LAYOUT - LANG-ACM-LS-F5-DR-LA-011024
- SITE CLEARANCE PLAN - LANG-ACM-SC-F5-DR-ZZ-011034
- GENERAL ARRANGEMENT- LANG-ACM-ZZ-F5-DR-ZZ-011501
- TYPICAL DETAILS SHEET 1 HIGH STREET AND ROYAL OAK - LANG-ACM-ZZ-F5-DR-ZZ-051504
- TYPICAL DETAILS SHEET 2 ROYAL OAK NORTH AND ALLOTMENT - LANG-ACM-ZZ-F5-DR-ZZ-051505
- TYPICAL DETAILS SHEET 3 EMBANKMENT - LANG-ACM-ZZ

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V3

Existing



Proposed (Year 15)



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Langstone Costal Defence
Viewpoint 3

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Assessment of the Visual Effects on the Visual Receptors from Viewpoint 3					
Photo details **Direction of View: North west** **Distance to Site: 433m**					
Location – See Figure 2, Viewpoints Location Plan	This view was taken from a mudflat causeway (wadeway) that becomes visible at low tide. This is a PRoW (108/132/1) and historically was a link between Hayling Island and Langstone beach.				
Landscape Character/Scale	There are areas of large mud flats exposed at low tide that are located close to the main drainage channels. This is a large scale landscape with views stretching out across the harbour. This estuarine landscape forms the basis for a recreational and commercial ventures. Chichester Harbour is characterised by sand banks, mud flats and sea channels within an inter tidal zone. The shallow marine basin is enclosed by a low lying natural shoreline. At low tide the harbour basin opens up for large stretches of salt marsh, intertidal beds and low lying fragmented islands. These channels of water which flow into rithes, then into other channels know as lakes and then into the sea. At low tide an intricate pattern of salt marshes appear along the shore line within the harbour basin. The landscape is constantly changing due to the ongoing geomorphical changes.				
Foreground	This is a tidal landscape with views out across the bay and to the foreground is the causeway that is passable at low tide. As there is a wide tidal range there are two contrasting landscapes, at low tide mudlflats and saltmarshes extend out from the village of Chichester harbour. While at high tide there is an expanse of a flat area of water. This stretch of the harbour basin consists of salt marsh and intertidal mud flats.				
Midground	The village of Langstone, residential and commercial premises have direct and unhindered views of this estuarine landscape. Historically this coastal port served the commercial and agricultural hinterland. The village now supports sea based activities and their support industries, and the village has become the focus of residential expansion.				
Background	Beyond the village views out are limited due to urban form and some belts of mature vegetation. There is a slight rise in the topography with trees forming the vegetative horizon.				
Receptor Type	**Receptor Sensitivity**	**Magnitude of Impact**		**Significance of Effect**	
		Construction	**Operation** *(Year 15 Summer/Winter)*	**Construction**	**Operation** *(Year 15 Summer)/Winter)*
Transient receptors – PRoW users (108/132/1)	Very High	Moderate	Minor	Minor adverse	Negligible adverse
Transient receptors – Recreational users of Chichester Harbour (Tidal Landscape)	Very High	Moderate	Minor	Minor adverse	Negligible adverse
Comments on the Assessment of Potential Visual Effects	**Construction Summer/Winter** There are no intermittent bands of vegetation that would determine a different impact in either the summer or winter during construction. The construction of Frontage 3, 4 and 5 will be seen at a mid-distance from this viewpoint and will be visible during construction. Along this section of Frontage 3 will involve the demolition of the existing wall and the installation of sheet piling. The PRoW along the harbour edge will be closed. On Frontage 4 the existing footpath to be broken out, width varied to suit existing property wall with a minimum clearance of 1500mm. One of the trees within the Watch Tower may be removed following an assessment by the project arboriculturist. Vegetation to the front of Green Cottage to be cleared. Existing gates are being removed and replaced with flood gates. A trench will be excavated to install the sheet piles and cladding. PRoW along the harbour edge to be closed and block work wall to be removed to footpath edge. For the Ship Inn Annex- there will be no wall in this location. The existing concrete slab and steps are to be broken out Sheet piling and a new footpath and wall will be constructed. Steps are to be located at the intersection between the Ship Inn Annex and the Lookout sections. Along this section of Frontage 5 a trench will be excavated to install the sheet piles and cladding. This will involve the use of a 35-tonne excavator. A new flood wall will be built along the frontage. During construction there would be an alteration to notable elements with the closure of the PRoW during the construction period. The Magnitude of Impact during the construction phase will be moderate as the size and scale will give a noticeable change to a large proportion of the existing view. The Significance of Effect during construction would be minor adverse, as there would be an adverse impact on some of the characteristic elements of this place and the sense of place. In addition, the receptor is of very high value and the construction works would introduce a discordant element into the view. **Operation Year 15 Summer/Winter** There is no intermittent bands of vegetation that would determine a different impact in either the summer or winter during operation. Along this section of Frontage 3, a flood wall topped with a glass flood barrier will be constructed. The sheet pile wall will be clad in red class A engineering brick. Paving slaps within the Ship Inn will be reinstated. In front of the Ship Inn annex, the new reinforced concrete wall will be clad in an old heritage blend brick cladding and will be topped with reconstituted cast stone coping. The frontage to the walkway will be clad in red class A engineering brick with a traditional style black post and handrail to the pavement edge. Along Frontage 4 between Green Cottage Annex and Winklemarket -The flood wall will be clad in flint in a style and tone similar to existing. The frontage wall will be clad in red class A engineering brick with a traditional style black post and handrail to the pavement edge. The reinforced concrete flood wall will be topped in reconstituted cast stone coping. The existing garden wall will be ret=ained behind the sea defenses. The footpath has an exposed aggregate finish with buff and grey coloured aggregates. Between the Ship Inn Annex and the Coastguard Cottages- the quay wall will be clad in red class A engineering brick with a traditional style black post and handrail to the pavement edge. The reinforced concrete garden flood wall will be clad in old heritage blend brick cladding and topped in reconstituted cast stone coping. The existing garden wall will be retained behind the sea defenses. The footpath has an exposed aggregate finish with buff and grey coloured aggregates. Along this section of Frontage 5 Royal Oak north the new reinforced concrete wall with a flood glass barrier to the top. Footpath reinstated with paving slabs and supplemented with additional limestone paving slabs. The wall is to be clad in stone. There will be 3 types of facing stone used and they will include blue sandstone, cream limestone and green Gloucester stone. The stone finish is tumbled, and the final random arrangement will be confirmed on site. All the flood gate face panels will be clad in a timber and are a proprietary product designed by others. The Magnitude of Impact during operation Year 15 will be minor. There are minor alterations to the key elements with the introduction of some additional safety elements, while they are appropriate and complementary, they are uncharacteristic of the original scheme. The ease of interaction between the recreational users and the sea edge has been lost in some areas due to the introduction of a flood walls. The access to the water's edge is more controlled than previously. The symbiotic relationship between the coast and its people are an important factor in the enjoyment of this coastal zone. Recreation activities with the seascape are part of the tradition of village life. The Significance of Effect would be negligible adverse. While the flood defence hard landscape materials have been sensitively incorporated into the overall scheme and would age, distress, weather and soften into the more historic hard landscape elements, the newness of the materials although barely noticeable from a distance would be visible upon closer inspection.				
Mitigation Strategy: *screening, on and off site planting, ground modeling, design modifications, alternative materials, colors*	**Overall mitigation measures to that section of frontage.** Frontage 3 1. Proposed retaining wall and hand railings along the steps and ramp. 2. New retaining wall to be brick cladded. 3. New ramp, steps and handrails to be consistent with the overall landscape strategy. 4. Potential for interpretation boards, seating, wayfinding. 5. New planters to the car park.			Frontage 4 1. Proposed guardrails with chain access for kayaks and boats. 2. Resurface existing pathway to match proposed pathway. 3. Historic Langstone Wadeway - opportunity for interpretation panel on land near here to explain history Frontage 5 1. Integrate seating and pathway resurfacing. 2. New earth embankment and reinstatement areas grass seeded to agricultural use. 3. New tree planting and native hedgerow.	
Mitigation Cross Reference	Frontage 3 • LANDSCAPE LAYOUT - LANG-ACM-LS-F3-DR-LA-011022 • SITE CLEARANCE PLAN - LANG-ACM-SC-F3-DR-ZZ-011032 • GENERAL ARRANGEMENT- LANG-ACM-ZZ-F3-DR-ZZ-011301 • TYPICAL DETAILS SHEET 1 SHIP INN CAR PARK- LANG-ACM-ZZ-F3-DR-ZZ-051304 • TYPICAL DETAILS SHEET 2 A3023 AND SHIP INN CAR PARK- LANG-ACM-ZZ-F3-DR-ZZ-051305 • TYPICAL DETAILS SHEET 3 SHEET PILE WALL AND SHIP INN ANNEX- LANG-ACM-ZZ-F3-DR-ZZ-051306 Frontage 4 • LANDSCAPE LAYOUT - LANG-ACM-LS-F4-DR-LA-011023 • SITE CLEARANCE PLAN - LANG-ACM-SC-F4-DR-ZZ-011033 • GENERAL ARRANGEMENT- LANG-ACM-ZZ-F4-DR-ZZ-011401 • FRONTAGE 4 TYPICAL DETAILS SHEET 1 WATCHTOWER - LANG-ACM-ZZ-F4-DR-ZZ-051403 • FRONTAGE 4 TYPICAL DETAILS SHEET 2 WATCHTOWER STEPS - LANG-ACM-ZZ-F4-DR-ZZ-051404 • FRONTAGE 4 TYPICAL DETAILS SHEET 3 GREEN COTTAGE ANNEX - LANG-ACM-ZZ-F4-DR-ZZ-051405 • TYPICAL DETAILS SHEET 4 GREEN COTTAGE - LANG-ACM-ZZ-F4-DR-ZZ-051406			• TYPICAL DETAILS SHEET 4 GREEN COTTAGE - LANG-ACM-ZZ-F4-DR-ZZ-051406 • TYPICAL DETAILS SHEET 5 GREEN COTTAGE GATE - LANG-ACM-ZZ-F4-DR-ZZ-051407 • TYPICAL DETAILS SHEET 6 THE FLINT WALL - LANG-ACM-ZZ-F4-DR-ZZ-051408 • TYPICAL DETAILS SHEET 7 WINKLEMARKET - LANG-ACM-ZZ-F4-DR-ZZ-051409 • TYPICAL DETAILS SHEET 8 WINKLEMARKET AND FLINT WALL TIE IN DETAILS - LANG-ACM-ZZ-F4-DR-ZZ-051410 Frontage 5 • LANDSCAPE LAYOUT - LANG-ACM-LS-F5-DR-LA-011024 • SITE CLEARANCE PLAN - LANG-ACM-SC-F5-DR-ZZ-011034 • GENERAL ARRANGEMENT- LANG-ACM-ZZ-F5-DR-ZZ-011501 • TYPICAL DETAILS SHEET 1 HIGH STREET AND ROYAL OAK - LANG-ACM-ZZ-F5-DR-ZZ-051504 • TYPICAL DETAILS SHEET 2 ROYAL OAK NORTH AND ALLOTMENT - LANG-ACM-ZZ-F5-DR-ZZ-051505 • TYPICAL DETAILS SHEET 3 EMBANKMENT - LANG-ACM-ZZ-F5-DR-ZZ-051506	

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V4

Existing



Extent of 50mm single frame image (27° field of view in portrait)

45° 40° 35° 30° 25° 20° 15° 10° 5° 0° 5° 10° 15° 20° 25° 30° 35° 40° 45°

Proposed (Year 15)



Extent of 50mm single frame image (27° field of view in portrait)

45° 40° 35° 30° 25° 20° 15° 10° 5° 0° 5° 10° 15° 20° 25° 30° 35° 40° 45°

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Langstone Costal Defence
Viewpoint 4

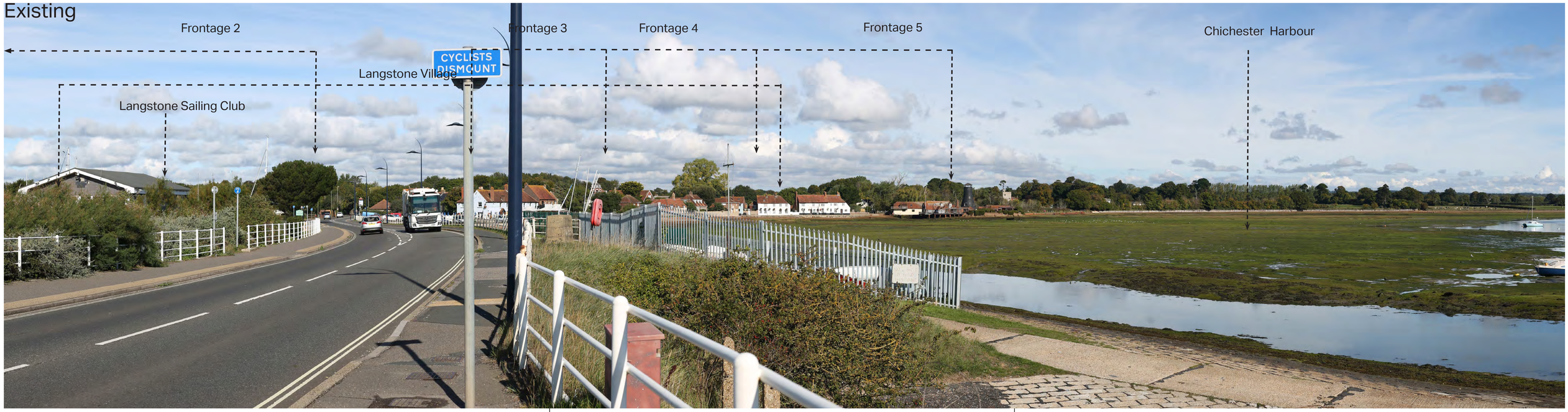
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Assessment of the Visual Effects on the Visual Receptors from Viewpoint 4						
Photo details **Direction of View : West** **Distance to Site: 6m**						
Location – See Figure 2, Viewpoints Location Plan	The view was taken from a shingle beach to the edge of Chichester harbour, looking at the allotment adjacent to the Royal Oak pub garden.					
Landscape Character/Scale	Chichester Harbour is a tidal landscape. Looking on residential housing to the harbour front					
Foreground	Shingle beach on the edge of Chichester Harbour. This is a tidal landscape. The tidal range is typically between 4 and 5m on the spring tides. Looking at residential housing to the harbour frontage of Langstone Village. PRoW runs along the front to the residential property. This path can flood at high tide. Allotment to the right of the property.					
Mid-ground	No views out due to building skyline.					
Background	No views out due to building skyline.					
Receptor Type	**Receptor Sensitivity**	**Magnitude of Impact**			**Significance of Effect**	
		Construction	**Operation** *(Year 15 Summer/Winter)*		**Construction**	**Operation** *(Year 15 Summer)/Winter)*
Transient receptors – Recreational users of Chichester Harbour (Tidal Landscape)	Very High	Moderate	Minor		Moderate adverse	Slight adverse
Comments on the Assessment of Potential Visual Effects	**Construction** **Summer and Winter** Existing footpath to be broken out, width varied to suit existing property wall minimum clearance 1500mm. Existing gap in allotment wall will now have flood gates, which are to be timber clad. Along this section a trench will be excavated to install the sheet piles and cladding. This will involve the use of a 35-tonne excavator. A new flood wall will be built along the front of the path. The allotment existing wall is to remain and be reinstated as required with a reinforced concrete wall constructed behind the allotment wall. The existing wall will be raised by 3 courses of brickwork. The new reinforced concrete wall is to be clad in stone. There will be 3 types of facing stone used and they will include blue sandstone, cream limestone and green Gloucester stone. The stone finish is tumbled, and the final random arrangement will be confirmed on site. The Magnitude of Impact during the construction phase will be moderate as the size and scale will give a noticeable change to a large proportion of the existing view. However, this is not significant due to the duration the viewer would experience and the duration of the works. The Significance of Effect during construction would be moderate adverse, as there would be an adverse impact on some of the characteristic elements of this place and the sense of place. In addition, the receptor is of very high value and the construction works would introduce a discordant element into the view. **Operation Year 15** **Summer and Winter** The Magnitude of Impact during operation Year 15 will be minor. There are minor alternations to the key elements and the introduction of some additional elements (flood wall), that were uncharacteristic of the original scheme. The ease of interaction between the recreational users and the sea edge has been lost in some areas due to the introduction of a flood walls. The access to the water's edge is more controlled than previously. The symbiotic relationship between the coast and its people are a key factor in the enjoyment of this coastal zone. Recreation activities with the seascape are part of the tradition of village life. The Significance of Effect would be slight adverse. While the flood defence hard landscape materials have been sensitively incorporated into the overall scheme and would age, distress, weather and soften into the more historic hard landscape elements, the newness of the materials would be slightly noticeable upon closer inspection.					
Mitigation Strategy: *screening, on and off site planting, ground modeling, design modifications, alternative materials, colors*	**Overall mitigation measures to that section of frontage.** Frontage 5 1. Integrate seating and pathway resurfacing. 2. New earth embankment and reinstatement areas grass seeded to agricultural use. 3. New tree planting and native hedgerow.					
Mitigation Cross Reference	Frontage 5 • LANDSCAPE LAYOUT - LANG-ACM-LS-F5-DR-LA-011024 • SITE CLEARANCE PLAN - LANG-ACM-SC-F5-DR-ZZ-011034 • GENERAL ARRANGEMENT- LANG-ACM-ZZ-F5-DR-ZZ-011501 • TYPICAL DETAILS SHEET 1 HIGH STREET AND ROYAL OAK - LANG-ACM-ZZ-F5-DR-ZZ-051504 • TYPICAL DETAILS SHEET 2 ROYAL OAK NORTH AND ALLOTMENT - LANG-ACM-ZZ-F5-DR-ZZ-051505 • TYPICAL DETAILS SHEET 3 EMBANKMENT - LANG-ACM-ZZ-F5-DR-ZZ-051506					

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V5

Existing



Extent of 50mm single frame image (27° field of view in portrait)

45° 40° 35° 30° 25° 20° 15° 10° 5° 0° 5° 10° 15° 20° 25° 30° 35° 40° 45°

Proposed (Year 15)



Extent of 50mm single frame image (27° field of view in portrait)

45° 40° 35° 30° 25° 20° 15° 10° 5° 0° 5° 10° 15° 20° 25° 30° 35° 40° 45°

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Langstone Costal Defence
Viewpoint 5

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Assessment of the Visual Effects on the Visual Receptors from Viewpoint 5						
Photo details **Direction of View: North** **Distance to Site: 265m**						
Location – See Figure 2, Viewpoints Location Plan	The view was taken from Langstone Bridge (A3023) which runs between Hayling Island and the mainland.					
Landscape Character/Scale	The landscape topography is flat with views limited by the vegetative and building horizon. The landscape is low lying and predominately flat with some sightly elevated areas.					
Foreground	Vehicular and pedestrian bridge which forms a link between the mainland and the island. The bridge is part of Shipwrights Way, which is a long-distance walking route. The is a 50-mile-long distance path for walkers, cyclists and horse-riders, linking the towns and villages of East Hampshire. This is section 11 of the route which starts at Langstone village and follows along the western perimeter of Hayling Island.					
Midground	Langstone sailing club to the left of the photo which is located within the sheltered tidal waters of Chichester harbour. As well as housing cruiser and dingys, there are several recreational buildings for the sailing members. To the left of the photo is Langstone Harbour which is used for recreational sailing. The mudflats within Chichester Harbour are visible.					
Background	The village of Langstone can be seen on the horizon.					
Receptor Type	**Receptor Sensitivity**	**Magnitude of Impact**		**Significance of Effect**		
		Construction	**Operation** *(Year 15 Summer/Winter)*	**Construction**	**Operation** *(Year 15 Summer)/Winter)*	
Transient receptors – Shipwrights Way- Long distance walking route	Very High	Minor	Negligible	Negligible adverse	Neutral	
Comments on the Assessment of Potential Visual Effects	**Construction** **Summer and winter** Construction on Frontage 2, 3, 4 and 5 will be visible at a distance from this location. 8-, 13- and 35-ton excavators will be used in the construction of the sea defenses. Frontage 2, 3, 4 and 5 will all require the installation of sheet piles along the entire frontage. Construction works that will be seen at a distance from this viewpoint. The Magnitude of Impact during construction will be minor, as from this distance the works will be barely perceptible within the wider view. The Significance of Effects will be negligible adverse as there would be a barely perceptible impact on the characteristic elements and features of the view. **Operation Year 15** **Summer and winter** By Year 15 the newness of the construction material finish will have softened and weathered into the historic hard landscape finishes. The Magnitude of Impact during operation Year 15 is negligible. From this distance there would look like there is no change to the baseline condition. The Significance of Effect would be neutral, from this distance and within the wider view the character of the view has been maintained.					
Mitigation Strategy: *screening, on and off site planting, ground modeling, design modifications, alternative materials, colors*	**Overall mitigation measures to that section of frontage.** Frontage 2 1. Proposed widening of shared cycleway/pathway from 1.9m to 3m to comply with highway standards. 2. Ecological measures such as Bee Posts to be included along the route. 3. Potential to enhance landscape, green space, footpaths, and benches. 4. Opportunity for wayfinding, interpretation boards and benches. 5. Reinstatement areas along improved shared cycleway/pathway to include species rich wildflower seeding, hedgerow and coastal meadow. Frontage 3 1. Proposed retaining wall and hand railings along the steps and ramp. 2. New retaining wall to be brick cladded. 3. New ramp, steps and handrails to be consistent with the overall landscape strategy. 4. Potential for interpretation boards, seating, wayfinding. 5. New planters to the car park.			Frontage 4 1. Proposed guardrails with chain access for kayaks and boats. 2. Resurface existing pathway to match proposed pathway. 3. Historic Langstone Wadeway - opportunity for interpretation panel on land near here to explain history Frontage 5 1. Integrate seating and pathway resurfacing. 2. New earth embankment and reinstatement areas grass seeded to agricultural use. 3. New tree planting and native hedgerow.		
Mitigation Cross Reference	Frontage 2 • LANDSCAPE LAYOUT - LANG-ACM-LS-F2-DR-LA-011021 • SITE CLEARANCE PLAN - LANG-ACM-SC-F2-DR-ZZ-011031 • GENERAL ARRANGEMENT- LANG-ACM-ZZ-F2-DR-ZZ-011201 • TYPICAL DETAILS SHEET PILE WALL ALTERNATIVE - LANG-ACM-ZZ-F2-DR-ZZ-051204 • TYPICAL DETAILS SHEET PILE WALL ALTERNATIVE- LANG-ACM-ZZ-F2-DR-ZZ-051205 • TYPICAL DETAILS SHEET PILE WALL ALTERNATIVE- LANG-ACM-ZZ-F2-DR-ZZ-051206 Frontage 3 • LANDSCAPE LAYOUT - LANG-ACM-LS-F3-DR-LA-011022 • SITE CLEARANCE PLAN - LANG-ACM-SC-F3-DR-ZZ-011032 • GENERAL ARRANGEMENT- LANG-ACM-ZZ-F3-DR-ZZ-011301 • TYPICAL DETAILS SHEET 1 SHIP INN CAR PARK- LANG-ACM-ZZ-F3-DR-ZZ-051304 • TYPICAL DETAILS SHEET 2 A3023 AND SHIP INN CAR PARK- LANG-ACM-ZZ-F3-DR-ZZ-051305 • TYPICAL DETAILS SHEET 3 SHEET PILE WALL AND SHIP INN ANNEX- LANG-ACM-ZZ-F3-DR-ZZ-051306			Frontage 4 • LANDSCAPE LAYOUT - LANG-ACM-LS-F4-DR-LA-011023 • SITE CLEARANCE PLAN - LANG-ACM-SC-F4-DR-ZZ-011033 • GENERAL ARRANGEMENT- LANG-ACM-ZZ-F4-DR-ZZ-011401 • FRONTAGE 4 TYPICAL DETAILS SHEET 1 WATCHTOWER - LANG-ACM-ZZ-F4-DR-ZZ-051403 • FRONTAGE 4 TYPICAL DETAILS SHEET 2 WATCHTOWER STEPS - LANG-ACM-ZZ-F4-DR-ZZ-051404 • FRONTAGE 4 TYPICAL DETAILS SHEET 3 GREEN COTTAGE ANNEX - LANG-ACM-ZZ-F4-DR-ZZ-051405 • TYPICAL DETAILS SHEET 4 GREEN COTTAGE - LANG-ACM-ZZ-F4-DR-ZZ-051406 • TYPICAL DETAILS SHEET 5 GREEN COTTAGE GATE - LANG-ACM-ZZ-F4-DR-ZZ-051407 • TYPICAL DETAILS SHEET 6 THE FLINT WALL - LANG-ACM-ZZ-F4-DR-ZZ-051408 • TYPICAL DETAILS SHEET 7 WINKLEMARKET - LANG-ACM-ZZ-F4-DR-ZZ-051409 • TYPICAL DETAILS SHEET 8 WINKLEMARKET AND FLINT WALL TIE IN DETAILS - LANG-ACM-ZZ-F4-DR-ZZ-051410 Frontage 5 • LANDSCAPE LAYOUT - LANG-ACM-LS-F5-DR-LA-011024 • SITE CLEARANCE PLAN - LANG-ACM-SC-F5-DR-ZZ-011034 • GENERAL ARRANGEMENT- LANG-ACM-ZZ-F5-DR-ZZ-011501 • TYPICAL DETAILS SHEET 1 HIGH STREET AND ROYAL OAK - LANG-ACM-ZZ-F5-DR-ZZ-051504 • TYPICAL DETAILS SHEET 2 ROYAL OAK NORTH AND ALLOTMENT - LANG-ACM-ZZ-F5-DR-ZZ-051505 • TYPICAL DETAILS SHEET 3 EMBANKMENT - LANG-ACM-ZZ-F5-DR-ZZ-051506		

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V6

Existing



Extent of 50mm single frame image (27° field of view in portrait)

45° 40° 35° 30° 25° 20° 15° 10° 5° 0° 5° 10° 15° 20° 25° 30° 35° 40° 45°

Proposed (Year 15)



Extent of 50mm single frame image (27° field of view in portrait)

45° 40° 35° 30° 25° 20° 15° 10° 5° 0° 5° 10° 15° 20° 25° 30° 35° 40° 45°

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Langstone Costal Defence
Viewpoint 6

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Assessment of the Visual Effects on the Visual Receptors from Viewpoint 6						
Photo details **Direction of View: North east** **Distance to Site: 180m**						
Location – See Figure 2, Viewpoints Location Plan	The view was taken from Langstone Meadows to the east of the village .					
Landscape Character/Scale	Part of Langstone Meadows, an area of green space to the east of Langstone village. This is a series of interconnecting small meadows traversed by PRoW and desire lines. Bordered by mature hedgerow and trees to the eastern side of the meadows. Housing borders the meadows to the north, south and west. While Langstone Mill Pond and green space with intermittent residences border to the east.					
Foreground	Looking north -east to an internal tree belt within Langstone Meadows. Vegetation is mature, native and for the most part deciduous..					
Midground	Top views of mature tree belts that form the internal structure within Langstone Meadows.					
Background	Views are limited by the vegetative horizon and relatively flat topography.					
Receptor Type	**Receptor Sensitivity**	**Magnitude of Impact**		**Significance of Effect**		
		Construction	**Operation** *(Year 15 Summer/Winter)*	**Construction**	**Operation** *(Year 15 Summer)/Winter)*	
Transient receptors - PRoW 108/54b/1	High	Moderate	Negigible	Moderate adverse	Slight adverse	
Comments on the Assessment of Potential Visual Effects	**Construction** **Summer and winter** Along this section of the frontage, will involve the construction of an earth flood embankment. This will be 36m long, the width varies but at its widest will be 5.8m, with a crest of 500mm. The slope will be 1 in 3. The embankment height varies due to ground level variance, but the highest it will be is 2.67m. The construction of the embankment will involve the construction of a clay core which extends below ground level, so there will be an additional step of excavation below ground and backfill with clay fill. Depending on when the construction of the embankment is carried out, views could open in the winter months as most of the vegetation is deciduous. If construction is carried out in the summer, then the vegetative screen will only allow glimpse views of the development. The PRoW (108/54b/1) will be closed during the construction phase. TPO areas will have trees removed. The Magnitude of Impact during construction will be moderate, as there will be a loss of mature tree vegetation. The Significance of Effects as from this distance would be moderate adverse as there would be an obvious deterioration in the view of a high value receptor (PRoW) and the closure of the route. **Operation Year 15** **Summer and winter** The embankment will be planted with native tree and shrub vegetation to mimic the style of the current vegetative layers. By year 15 the native species planting will have reached maturity. PRoW (108/54b/1) will run along the original route. The only additional element will be a timber clad flood garden wall. Grass reinstatement to include a meadow mix on the southern bank and hedgerow mix on the northern band. The Magnitude of Impact during operation Year 15 is negligible. The proposed planting to the embankment will have matured at this stage and the perceptual qualities and character of this landscape will be restored. The Significance of Effect would now be slight adverse. The mitigation measures would now blend into the landscape, help to restore the sense of place and the view is largely the same. However, the loss of TPO trees that have been protected for their unique features is irreplaceable.					
Mitigation Strategy: *screening, on and off site planting, ground modeling, design modifications, alternative materials, colors*	**Overall mitigation measures to that section of frontage.** Frontage 5 1. Integrate seating and pathway resurfacing. 2. New earth embankment and reinstatement areas grass seeded to agricultural use. 3. New tree planting and native hedgerow.					
Mitigation Cross Reference	Frontage 5 • LANDSCAPE LAYOUT - LANG-ACM-LS-F5-DR-LA-011024 • SITE CLEARANCE PLAN - LANG-ACM-SC-F5-DR-ZZ-011034 • GENERAL ARRANGEMENT- LANG-ACM-ZZ-F5-DR-ZZ-011501 • TYPICAL DETAILS SHEET 1 HIGH STREET AND ROYAL OAK - LANG-ACM-ZZ-F5-DR-ZZ-051504 • TYPICAL DETAILS SHEET 2 ROYAL OAK NORTH AND ALLOTMENT - LANG-ACM-ZZ-F5-DR-ZZ-051505 • TYPICAL DETAILS SHEET 3 EMBANKMENT - LANG-ACM-ZZ-F5-DR-ZZ-051506					

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