

Hampton Quay
Planning Design and Access Statement

Littlehampton

West Sussex
BN17 5RA

August 2020

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		Position	Date
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Notes
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1. Introduction

1.1. Executive summary

1.1.1. Purpose of this report

The Design and Access Statement explains how the proposed development is a suitable response to the site and its setting, and demonstrate that it can be adequately accessed by prospective users. It is provided to support the planning application.

This statement seeks to explain the steps taken to appraise the context, the design principles and concepts, and demonstrate how the design takes into account the context.

The DAS explains the approach to access, relevant policies, consultation and response in relation to access and how any specific issues which might affect access to the proposed development have been addressed.

1.1.2. Structure of this report

The document is set out in the following sections:

- Appraising the context. This section describes the processes undertaken to assess the site and its' surroundings, the history, and the relevant policy. The findings are evaluated and presented as constraints and opportunities.
- Consultation and development. This section describes the consultation procedures, including public consultation, formal pre-application work and the development of the design in response to the feedback.
- Design proposal. This section sets out the use, amount, the layout, the scale, access and inclusivity, the landscaping and appearance of the proposed development.

The site, named Hampton Quay, is a strip of land, between the A259 road and The River Arun, on the edge of Littlehampton, that for a large part has been disconnected from the rest of the town.

The site whose form has been derived by various engineering projects over the years, firstly by the railway, then the bridge, then the A259, and most recently the flood defence and habitat compensation. There has been a direct access to the site for the past 30 years, since the formation of the A259, yet since then it has been under-utilised. The site was historically on the edge of the town and linked with Wick. As the town has grown and continues to grow it will become increasingly important as a gateway site, marking the entrance to Littlehampton from the river and by road.

The site does not lie within the settlement boundary yet it lies within the Littlehampton Economic Growth Area (LEGA), a key element of the Arun Local Plan, which surrounds the site on 3 sides. The LEGA sets out ambitious plans to deliver new houses, improve connectivity, enhance leisure activities and rejuvenate the riverfront. Hampton Quay has the potential to deliver on all of these ambitions and is available to do so now.

The Local Plan includes proposals to redevelop land to the west of the River Arun, from the town centre north parallel with the entire Hampton Quay site. It also identifies the need to deliver housing on Windfall Sites, such as Hampton Quay.

The application site is 2.15 hectares of which 1.2 hectares (3.0 acres) is protected by modern flood defences built to a 1 in 200 year standard including allowing for sea level rise. The site was cleared during the east bank flood defence works and was left fairly bare in 2015. The site has a number of constraints, including flood-risk, land contamination, surface water run-off from adjacent land, ecology, trees. None of these constraints are unusual or onerous and there is an opportunity to provide betterment for all of these through the construction works.

The proposal is to create a landmark gateway development comprising 105 riverside apartments with commercial/leisure space, inclusive riverside walks, cycle paths, leisure moorings and a restaurant/café. The apartments are designed to provide for all generations, with larger units that cater for young families and retirees, and provide shared spaces, promoting better social cohesion.

The plan is conceived as four apartment buildings, set within differing landscape character areas in response to the changing context of the site. A shared courtyard/garden space is provided at the ground floor of each building with a shared common space for residents to interact, cook and eat together. It is envisaged that the commercial space could be a crèche, gymnasium, or small business unit that complements the development.

The new development provides an opportunity to protect the important intertidal habitat, to deal with any existing contamination on site and to reduce nitrate run-off from the ditches. The existing saltmarsh is to be protected and where it is not well established this protection should enable it to thrive. Where some trees need to be removed to make way for the development these will be replaced more than two-fold and with a range of native species, enhancing biodiversity. A new bird hide and screen will provide the opportunity to view wintering birds without disturbing them. The development is designed to reduce light pollution with flanking elevations facing the river, gaps between buildings, parking below ground level and low level bollard lighting.

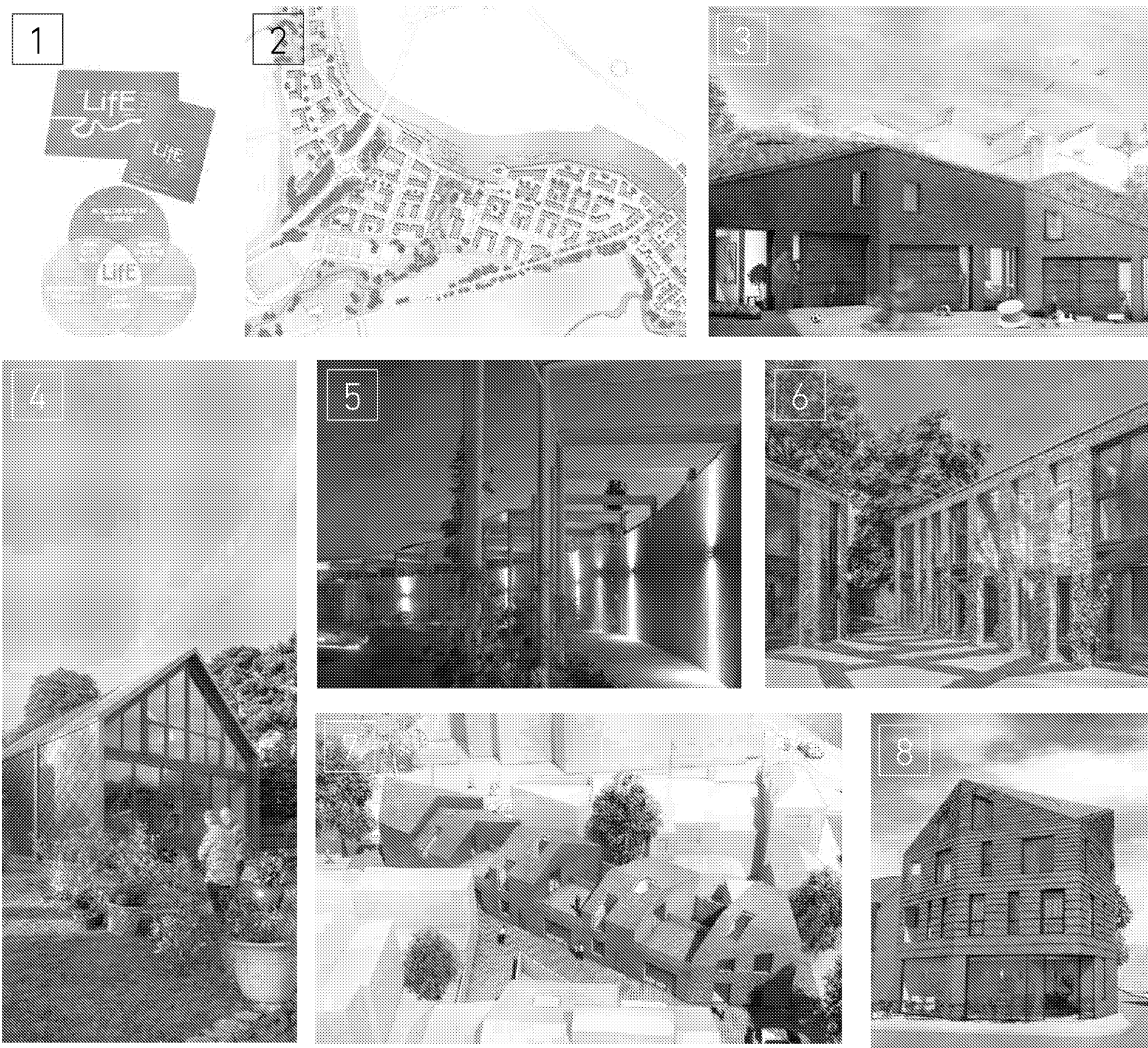
This water side, multi-generational development will not only form a stunning gateway into the town but it will reinvigorate this area, it will set a benchmark for the regeneration of West Bank and it will hopefully provide an exemplar for other coastal redevelopment in Sussex and beyond.

1.2. Background

Stolon Studio Ltd is an architecture practice who specialise in complex development sites, often these are brownfield, backland sites. Within all of the projects, architecture and public realm are equally important. The architecture emerges from the site constraints and continuously informs the design, while the public realm circulates between and unites the buildings.

Robert Barker, one of the co-founders of Stolon Studio has been involved in the redevelopment plans for Littlehampton for the past 12 years. Robert firstly became involved in Littlehampton when it was put forward by West Sussex County Council to be one of the study sites for the Defra funded Life project which he led, at his old firm Baca and with the Building Research Establishment (BRE).

Robert led the West Bank regeneration study in 2010 for ADC and was involved in the subsequent work on the West Bank in 2012 and 2016, both with GL Hearn. At his previous firm, Robert was also responsible for a number of innovative flood solutions, including the delivery of the Amphibious House, the Floating Home in Chichester and the Flood Resilient Property at the BRE Centre in Watford.



Selection of Projects

- 1. Long Term Initiatives for flood-risk environments. Barker, Baca
- 2. LEGA study Littlehampton. R Barker, Baca
- 3. Majendie Road, London
- 4. Amphibious House, Bucks. R Barker, Baca
- 5. Fowlescombe Estate, Devon
- 6. Forest Mews, South East London
- 7. Backland site, London
- 8. Love Place, London

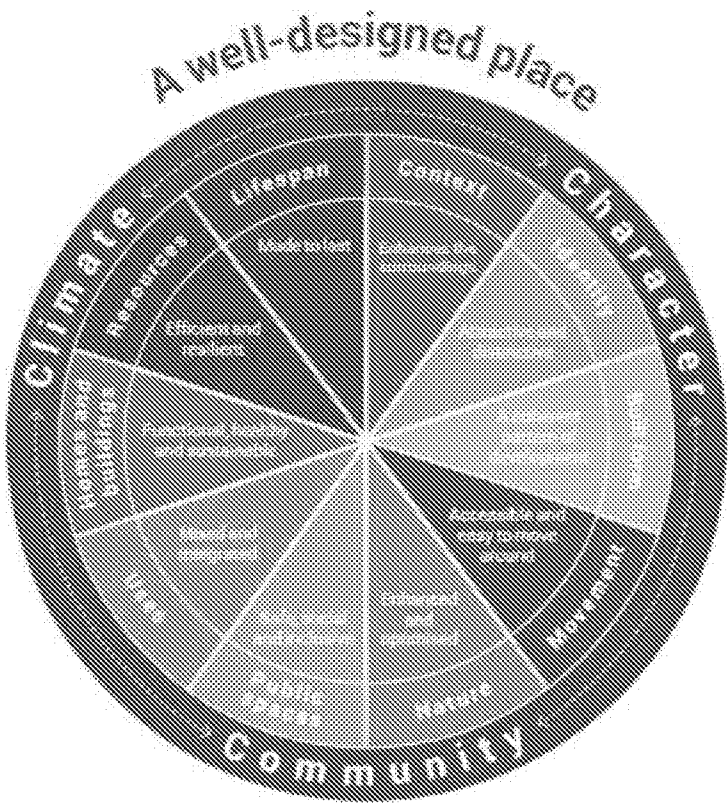
1.3. National & District Design Guides

This document has been produced in line with the National Design Guide, October 2019 and has taken into account the draft Arun District Design Guide 2020. See the key design objectives pictured opposite.

“Well-designed places have individual characteristics which work together to create its physical Character. The ten characteristics help to nurture and sustain a sense of Community. They work to positively address environmental issues affecting Climate. They all contribute towards the cross-cutting themes for good design set out in the National Planning Policy Framework.”

The ten characteristics from the National Design Guide are as follows:

- Context - enhances the surroundings
- Identity - attractive and distinctive
- Built form - a coherent pattern of development
- Movement - accessible and easy to move around
- Nature - enhanced and optimised
- Public Spaces - safe, social and inclusive
- Uses - mixed and integrated
- Homes and buildings - functional, healthy and sustainable
- Resources - efficient and resilient
- Lifespan - made to last



The National Design Guide 2019
- Ten characteristics of a well
designed place



Arun District Council Design Guide
2020 - Key Design Objectives

2. Context & Identity

2.1. The site

The application site is 2.15ha and is located along the east bank of the River Arun in Littlehampton, West Sussex. The main access point into the site is from an existing exit road from the Bridge road roundabout.

The site is within the Littlehampton Economic Growth Area (LEGA) illustrated in the Arun District Local Plan (2011-2031).

It is within flood zone 3 and approx 45% is protected by recently upgraded flood defences to a 1in200 year standard of protection undertaken by the Environment Agency in 2014.

Historically, the site encompassed a salting along the west boundary and was used as an area to exchange goods from one vessel to another playing an important part in the local economy.

During the late 1900's it has been labelled as a campsite and later as part of Wick Farm.

The following pages examine the wider context.



2.2. Site photographs

Opposite are a selection of photographs from an initial visit to the site. During the visit conditions were dry and sunny, and the tide was low providing greater visibility of the embankments and areas of saltmarsh.

Top left

Looking up towards the main access into the site.



Top right

Looking north west over the saltmarsh in the northern half of the site.

Middle left

View from top of central embankment looking south.



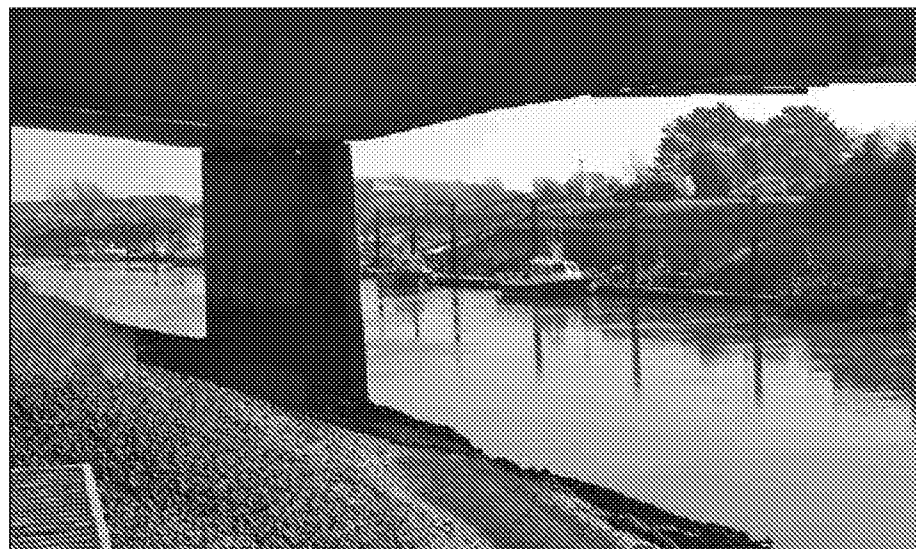
Middle right

View from the top of the sheet piling embankment looking north.



Bottom left

View from the south corner of the site looking under the A259 bridge towards the Littlehampton Marina.



Bottom right

Main river running through the south corner of the site, looking east.



2.3. Accessibility

The site is located immediately west of the A259 and west of the Littlehampton Branch Line. Access from private and public transport means are described below.

2.3.1. By car

The site can be accessed via the western arm of the A259 Bridge Road Roundabout. The roundabout arm has a two lane connection, meaning there is a dedicated access and egress from the round about. This enters onto a two lane road that passes towards the centre of the site. There is no other formal roads on the site.

2.3.2. By train

Littlehampton mainline station is located approximately 1200m / 15 min from the centre of the site.

Littlehampton station is a terminus at the end of a short branch off the West Coastway line.

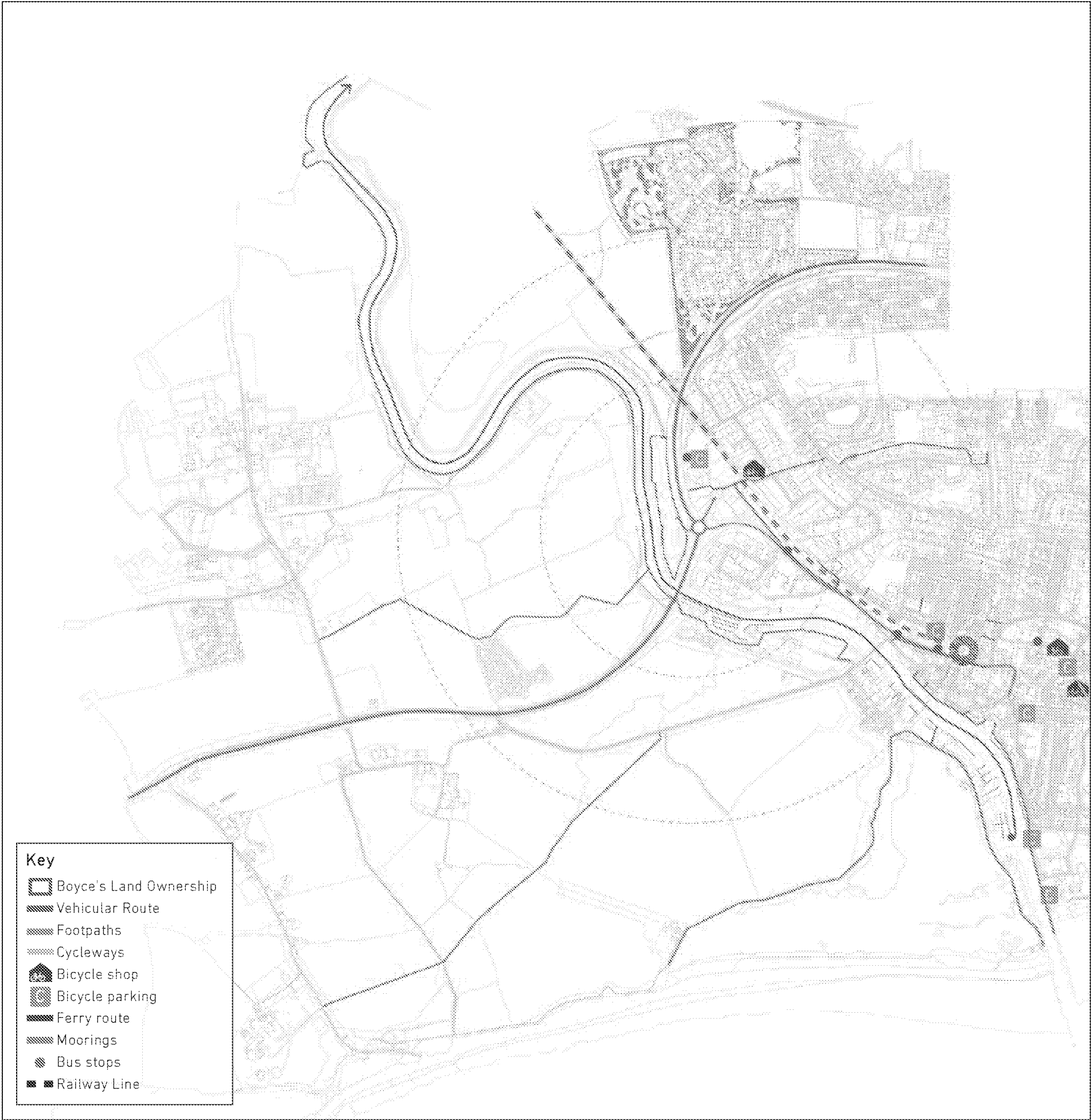
Direct trains are available from the station to Chichester, Brighton and London Victoria, taking 18 mins, 45 mins and 1 hr 45 mins, respectively.

2.3.3. By foot and cycle

There is no existing footpaths or cyclepaths connecting the site. WSCC have drafted plans to widen the roundabout eastwards and to construct new foot and cycle paths that would provide access to the site.

2.3.4. By boat

The site contains c.500m of river frontage, it has a disused jetty but no other direct access from the river.



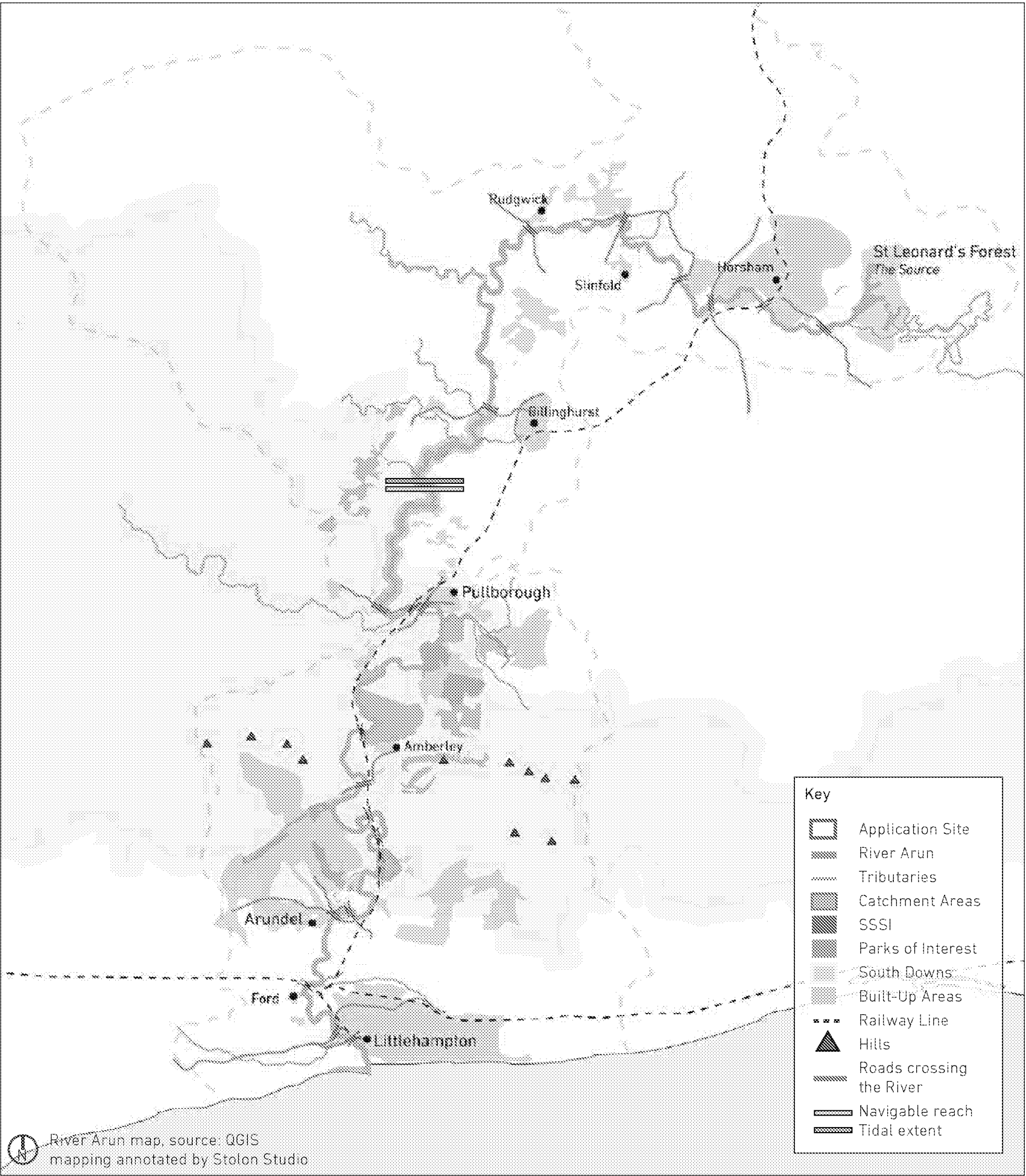
2.4. The River Arun

The location of the application site along the east bank of the River Arun means it is directly affected by the River which is a significant part of the immediate and surrounding context.

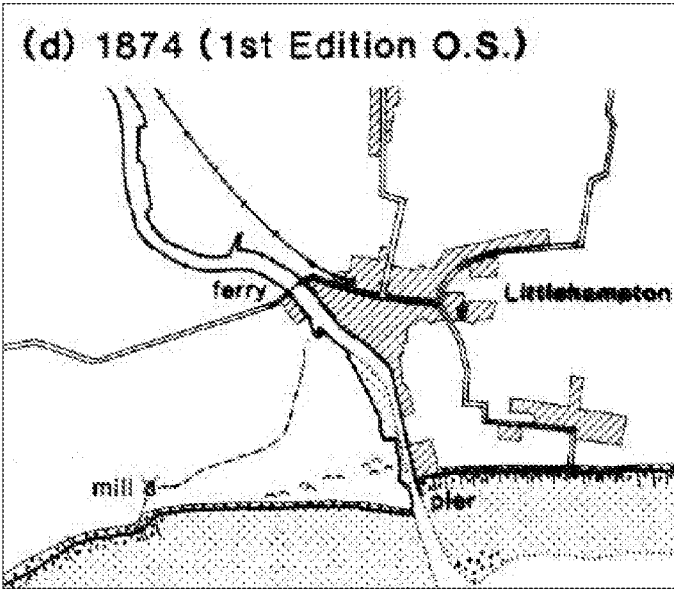
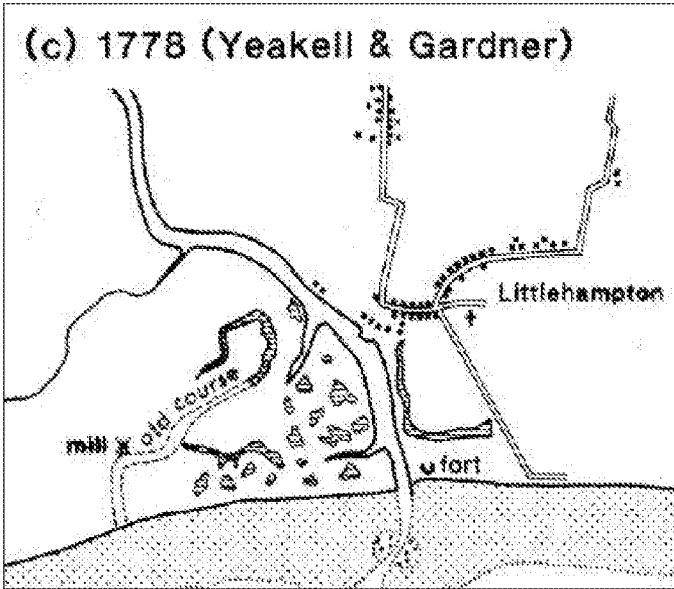
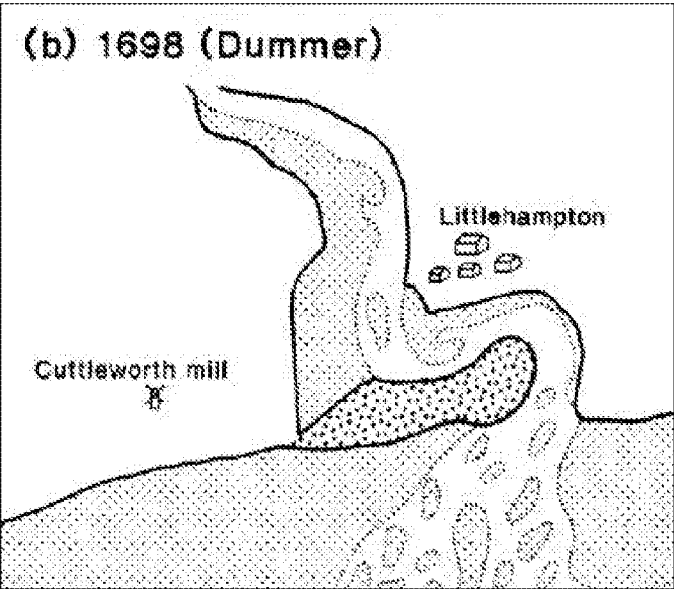
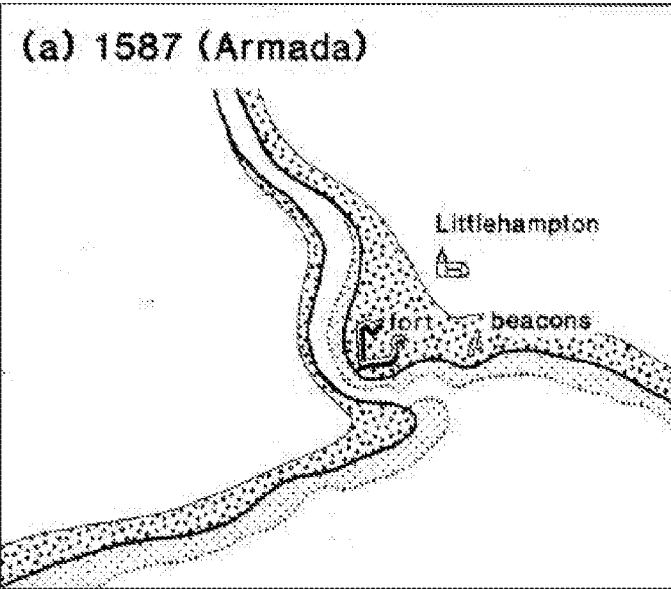
It's important to understand the River Arun's history, where it flows from, through and to, the features of the landscape and the attractions and activities located along its banks.

This initial research has allowed us to investigate Littlehampton's position along the River Arun and look more closely at how the site fits within this collective.

- The River Arun flows from St Leonard's Forest through the South Downs and out to the English Channel at Littlehampton.
- It is tidal for 41km from Littlehampton as far as Pallingham Quay. This is also the navigable extent of the river.
- In 150AD the River Arun was named Trisantonis (an Ancient Celtic word for 'the trespasser') - indicating the river frequently flooded.



2.5. History



Historic Character Assessment Report, Sussex Extensive Urban Survey (EUS), 2009

Research undertaken by the University of Sussex shows how the channel of the River Arun has changed over time. The maps above show it's route through several decades.

The Environment Agency fact file suggests that the mouth of the River Arun has moved from Lancing in the east to various locations as it moved West over the last 5 centuries.

Evidence of human influence on the lower reaches of the River Arun begins in the 15th century.

The Littlehampton Historic Character Assessment report, 2009, details activity along the River Arun.

It suggests that inland communication along the river has been significant from the town, along with maritime activity which was recorded from the 16th century onwards.

Also during this time, a new channel was cut through the mounting shingle spit. Flanking piers extended into the sea creating a quay width of 45m and a depth of 4m.

Mid 19th century saw the opening of the coastal railway which passed approx 1.5km north of Littlehampton providing no connection from the port to the railway. Subsequently the Littlehampton port suffered.

By 1860, Littlehampton gained its own branch line providing an important connection to inland trade and increasing port activity.

The fishing industry and shipbuilding also began to increase, with the construction of larger merchant vessels until the 1870's and smaller vessels thereafter.

Post First and Second World War the port faced further decline however, aggregates and stone maintained post-war imports into Littlehampton port.

In 1908, the 'Floating Bridge' ceased operating and was replaced by the swing bridge.

By 1914, commercial activity along the river slowed while recreational yachting became established and by 1955 Littlehampton was a notable yachting port with moorings for over 400 leisure craft by 1960.

In 1938, the construction of the fixed railway bridge at Ford stopped masted craft reaching Arundel town.

The 1990's saw the construction of the Littlehampton bypass and subsequently the bridge spanning just north of the Marina further restricting masted craft north of Littlehampton.

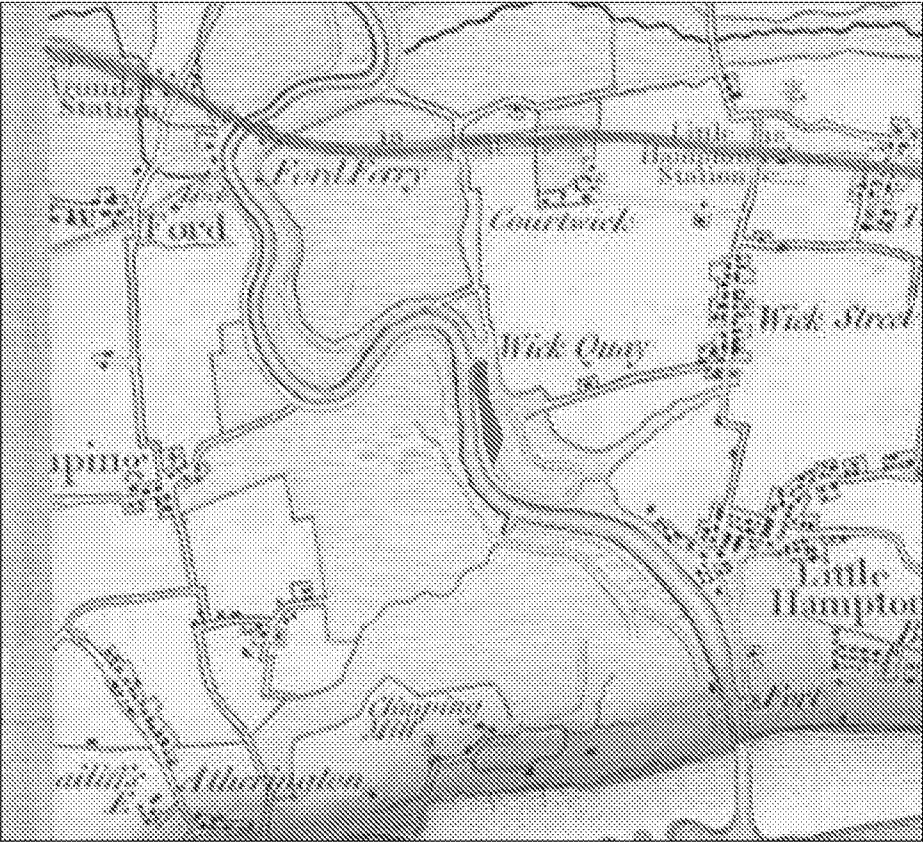
The Littlehampton Yacht club re-established the Ferry operation in 2012 providing river crossing services, harbour tours and up to Arundel.

2.6. History of Littlehampton

1778-1783



1813-1854



1945



1086

- Littlehampton is recorded in the Domesday book

1700'S

- Increases in trade at Littlehampton mostly handled by Arundel.
- Late 1700's - The town began to develop as a seaside resort.
- 1793-1815 - Troops brought to Littlehampton and barracks provided during the Napoleonic Wars.

1800's

- 1804 - Shipbuilding developed along with port.
- Early 1800's - Established the Oyster Pond.
- 1824 - Littlehampton trade eclipsed Arundel.
- 1825 - Opening of the chain ferry transferred shipbuilding to the west bank
- 1840 - Opening of the coastal railway disconnected the port from the railway system having an immediate impact on inland water trade.
- 1840/50's - Seaside resort in decline and seawater baths had gone.
- 1860's - Littlehampton developed into a town
- 1863 - Littlehampton established its own branch line which saw a peak in harbour activity and contributed to expansion of seaside resort.
- Late 1800's - Fishing industry expanded
- 1882 - Steamer services ceased reducing coastal trade.

1900's

- 1908- Fishing industry in decline and effectively ceased by 1962.
- 1910- Port continued its decline and trade on the River Arun was said to be practically extinct.
- 1900's- Shipbuilding shifts from commercial to leisure craft.
- 1914- Recreational yachting was established
- 1955- Littlehampton became a notable yachting port.
- 1960- Littlehampton had moorings for over 400 leisure craft.
- Late 1900's- Light industry became focused on industrial estates. Riverside industrial estate developing by 1963.
- 1972- Marina was built on the west bank and has been considerably extended since.

2.7. Lower Arun attractions & activities

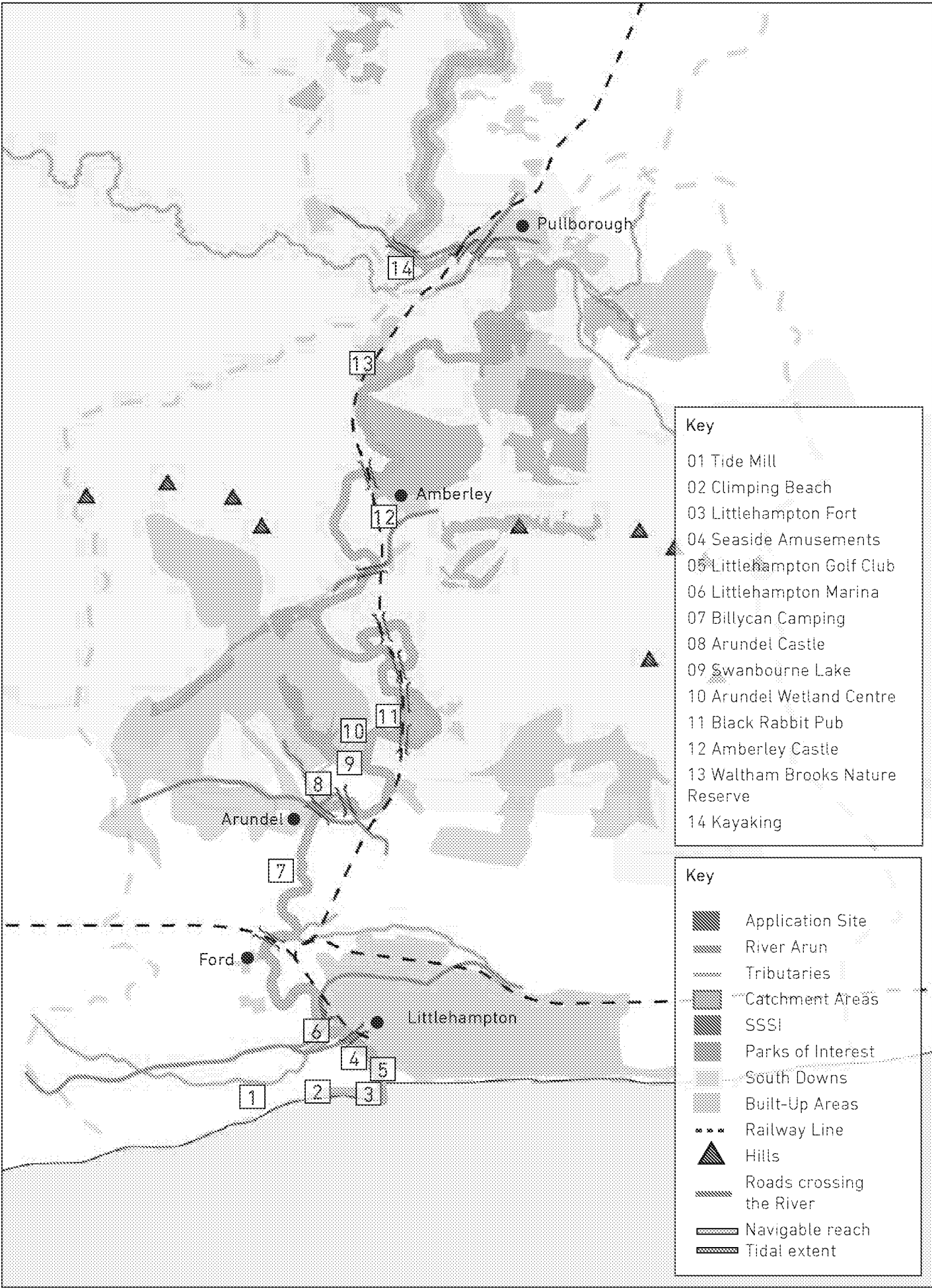
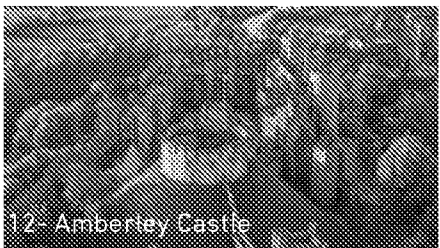
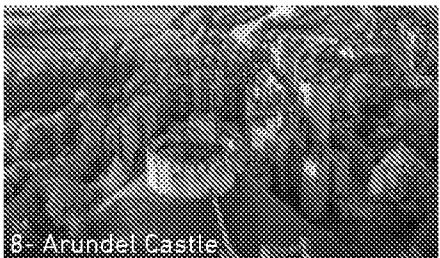
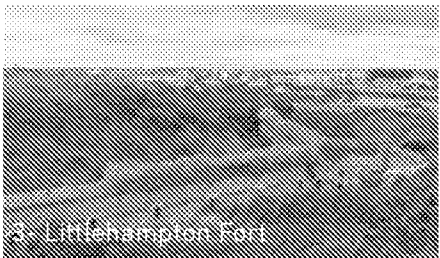
A study was undertaken into the different activities and attractions along the River Arun to better understand how the site can support and enhance the journey along the river.

Three characteristics of Lower Arun

- Heritage
- Wildlife
- Outdoor Activity

Connectivity is reliant on car

- No direct train connection between Littlehampton and Lower Arun Valley
- Limited up river ferry service
- No allocated cycle path
- Public right of way footpath along the west bank of the River Arun giving Littlehampton connectivity to Arundel.
- Leisure harbour economy started expanding from 1900's



2.8. Lower Arun landscape & biodiversity

The River Arun begins at its source in St Leonard's Forest and runs through the rich vegetation, farmland, wetland habitat, South Downs and the low lying coastline until it flows out to the English Channel.

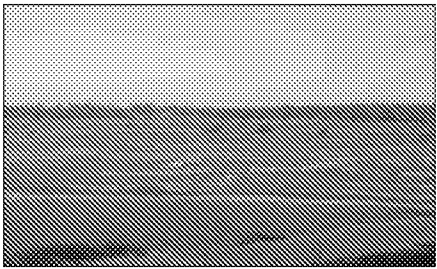
It was important to identify where these different landscapes merged into each other and where the application site sits within this network.

Key Landscape Characteristics

- Low coastline
- Shallow valley sides slightly undulating farmland.
- Backdrop of the scarp slope of the South Downs National Park.
- Meandering River Arun, fed by rifes and dykes with adjacent reed beds.
- Stretches of engineered concrete river banks.
- Dominant urban fringe of Littlehampton, Worthing and Lancing.
- Long river valley views towards Chalk Downs and Arundel from the south Arun Valley and towards the sea

Biodiversity includes:

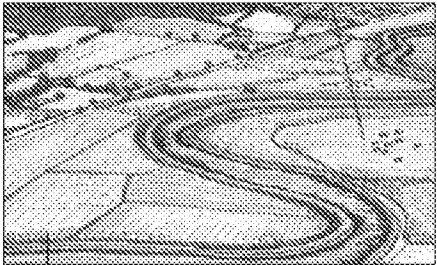
- Rich marginal vegetation along riverbanks and floodplain ditches,
- Low lying grassland important for wintering birds
- Climping sand dune system



Wetland Habitat



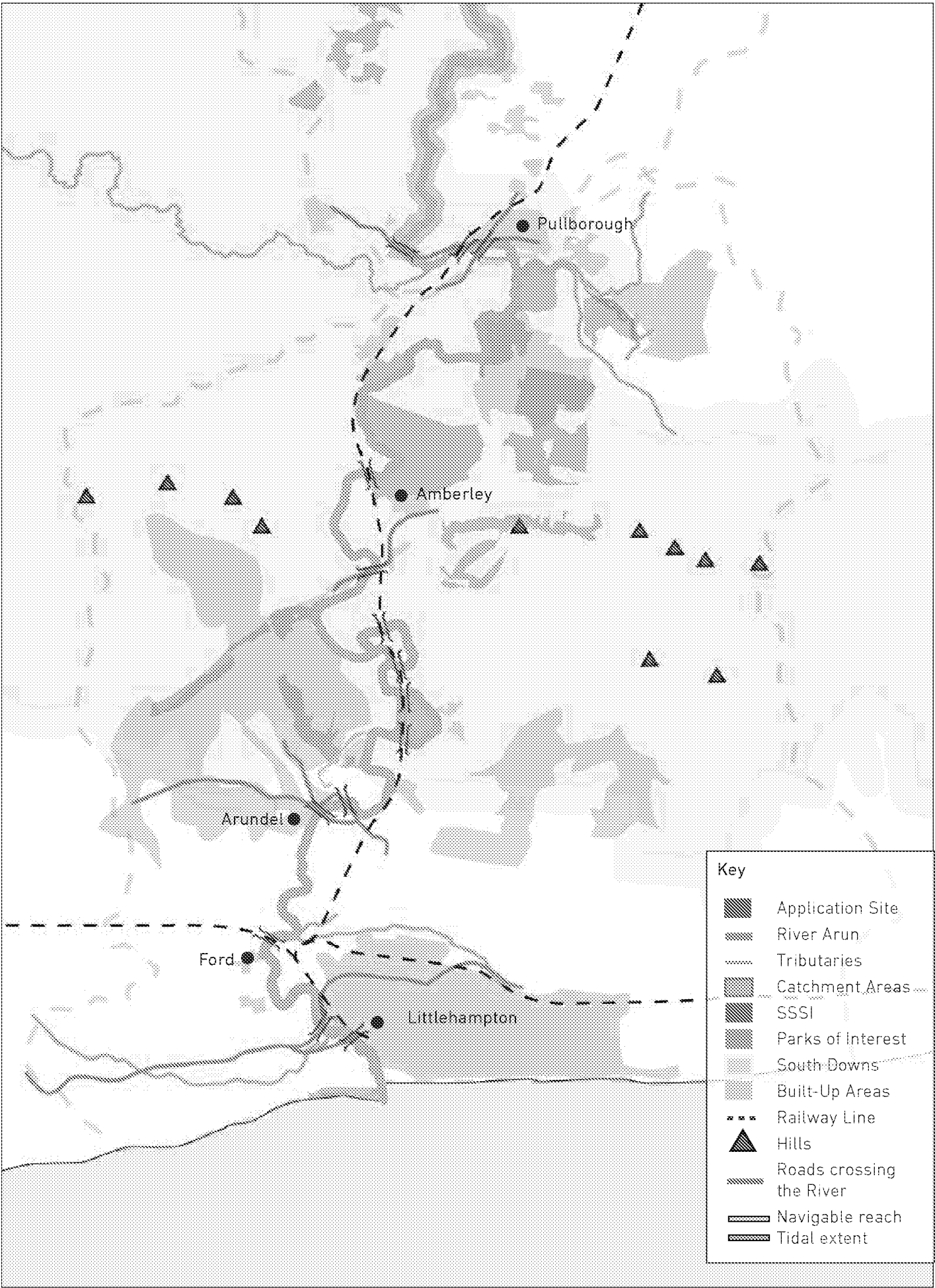
South Downs



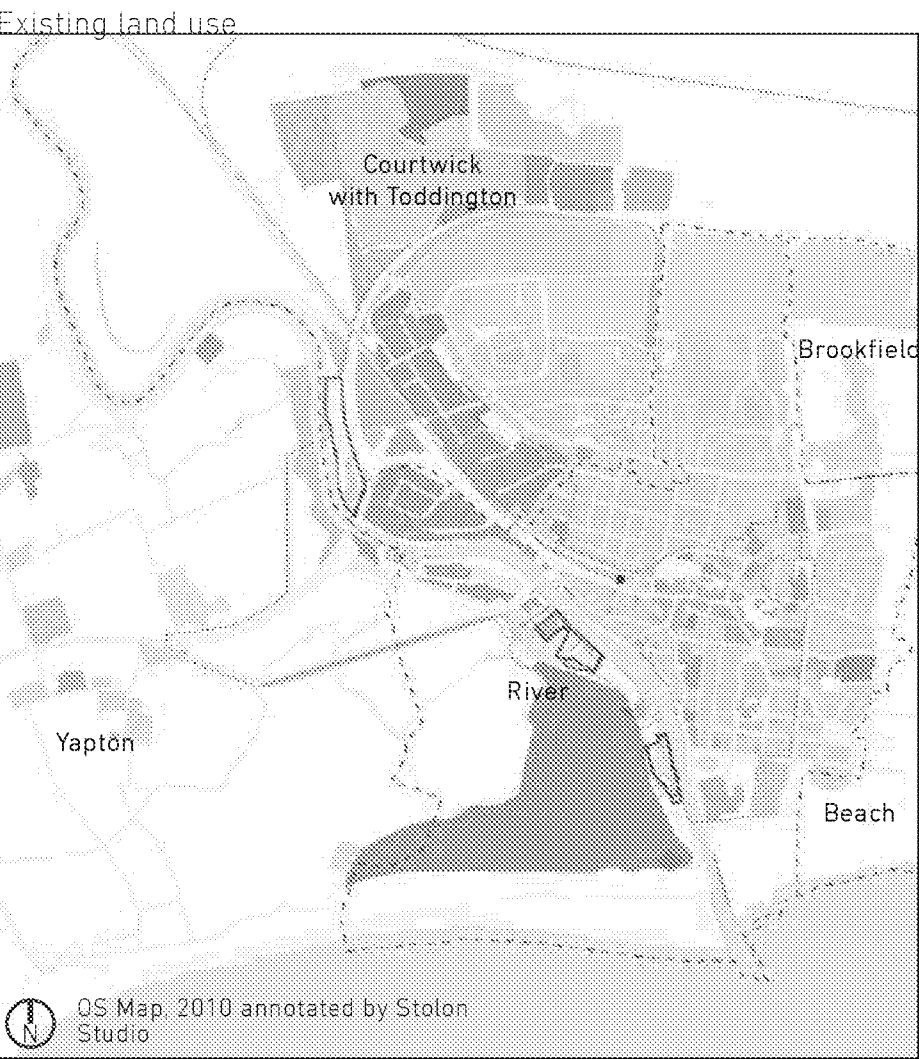
Low lying coastline



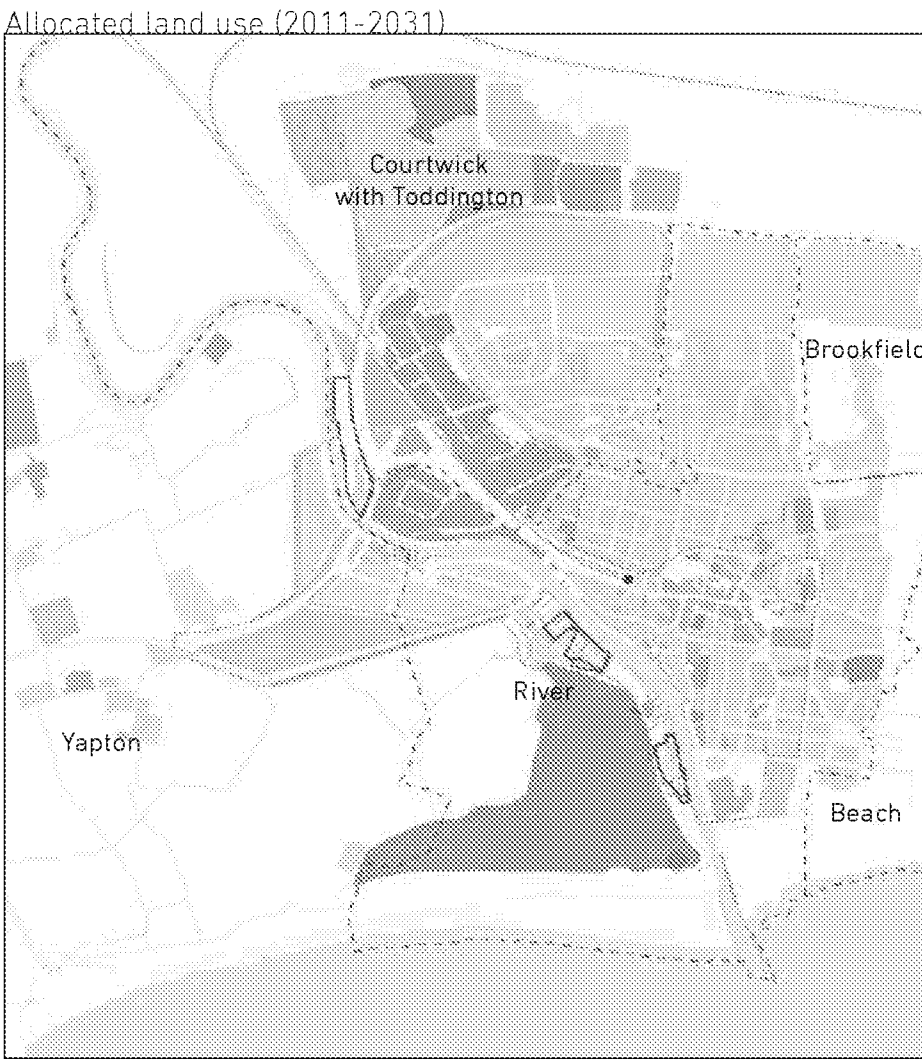
Climping Sand Dunes



2.9. Littlehampton land use

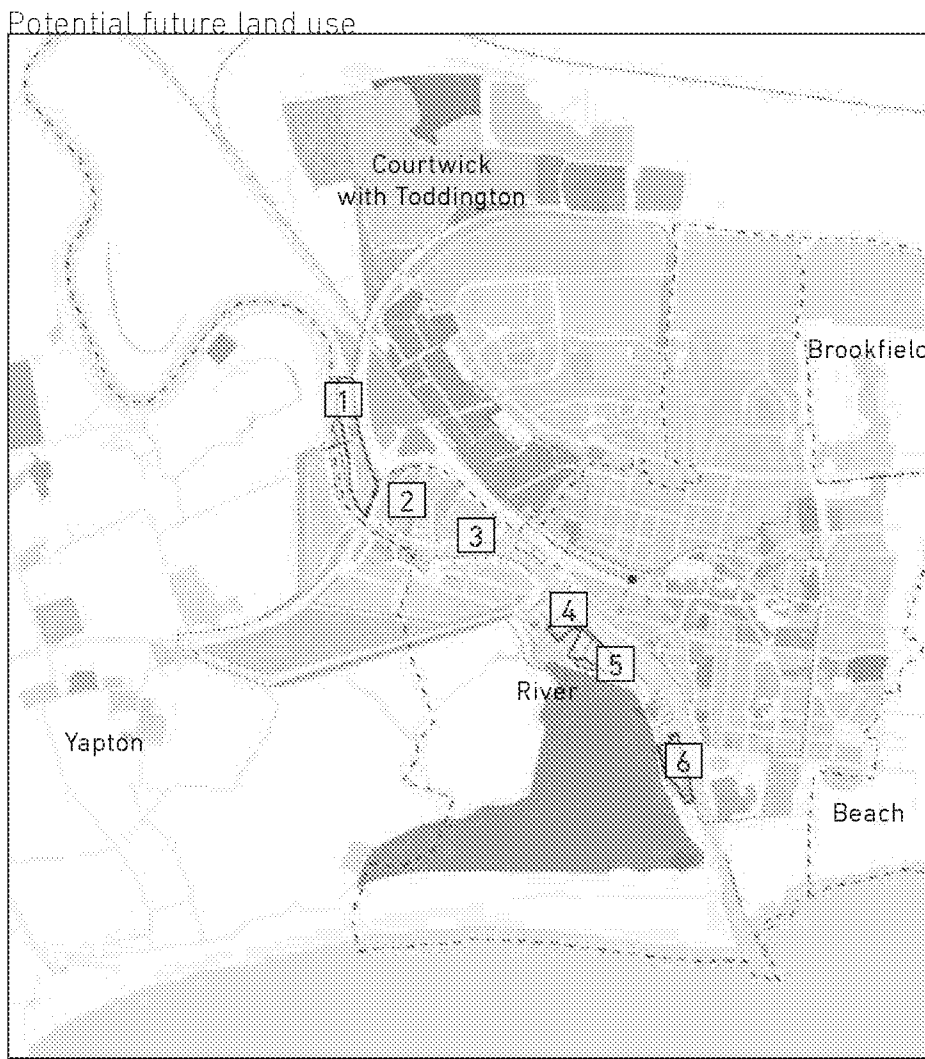


The image above illustrates the existing land use in Littlehampton. Along the River Arun the land is occupied by a mix of industry, business, water activity, sport/ recreation and residential.



Within the Arun District Local Plan, the existing land uses and areas identified for potential regeneration are the following;

- Town centre & seafront
- West Bank
- Railway Wharf
- Leisure Moorings



Potential future development is shown in the diagram above. This vision could enhance riverside living in Littlehampton and extend the town centre along the River Arun.

The following highlight the potential future locations for development.

- 01 Hampton Quay (application site)
- 02 River Industrial Estate
- 03 Railway Wharf
- 04 Arun Shipyard
- 05 Timber Docks
- 06 Littlehampton Yacht Club

Key

Boyce's Land Ownership	Health centres
LEGA Boundary	Cultural
Residential	Secure Institution
Schools	Sports / Recreation
Shops / Restaurants	Greenery
Business / Industry	Campsites
Hotel	

3. Constraints

3.1. Constraints

The application site is located on the edge of the built up area boundary to Littlehampton and is bounded by the A259 main road and the River Arun with an open view west towards the South Downs.

A main river designated creek runs through the south corner of the site. The boundary also incorporates an existing access from the Bridge road roundabout, recently upgraded flood defences, areas of saltmarsh habitat and existing treatment works.

Due to the variety of environments on site key consultants have been appointed to explore these further.

These constraints include:

- Arun District Council [ADC] policy
- Air quality
- Arboriculture
- Biodiversity
- Flood risk & sustainable urban drainage (SuDS)
- Historic environment
- Land contamination
- Lighting
- Noise
- Services
- Transport



Images of key constraints on site.

3.2. Local policy in Littlehampton

The Arun Local Plan policy map is pictured opposite as an extract surrounding the site. The relevant policies shown which relate to the application site are listed below.

Policies designated on site

- The Setting of Arundel (northern part only)
- LEGA
- Biodiversity Opportunity Area
- Flood Zone 1, 2 and 3
- SSSI impact zone of Climping beach (to be confirmed)

Potential connections to:

- Green Link Littlehampton to Arundel
- Strategic Housing Allocation

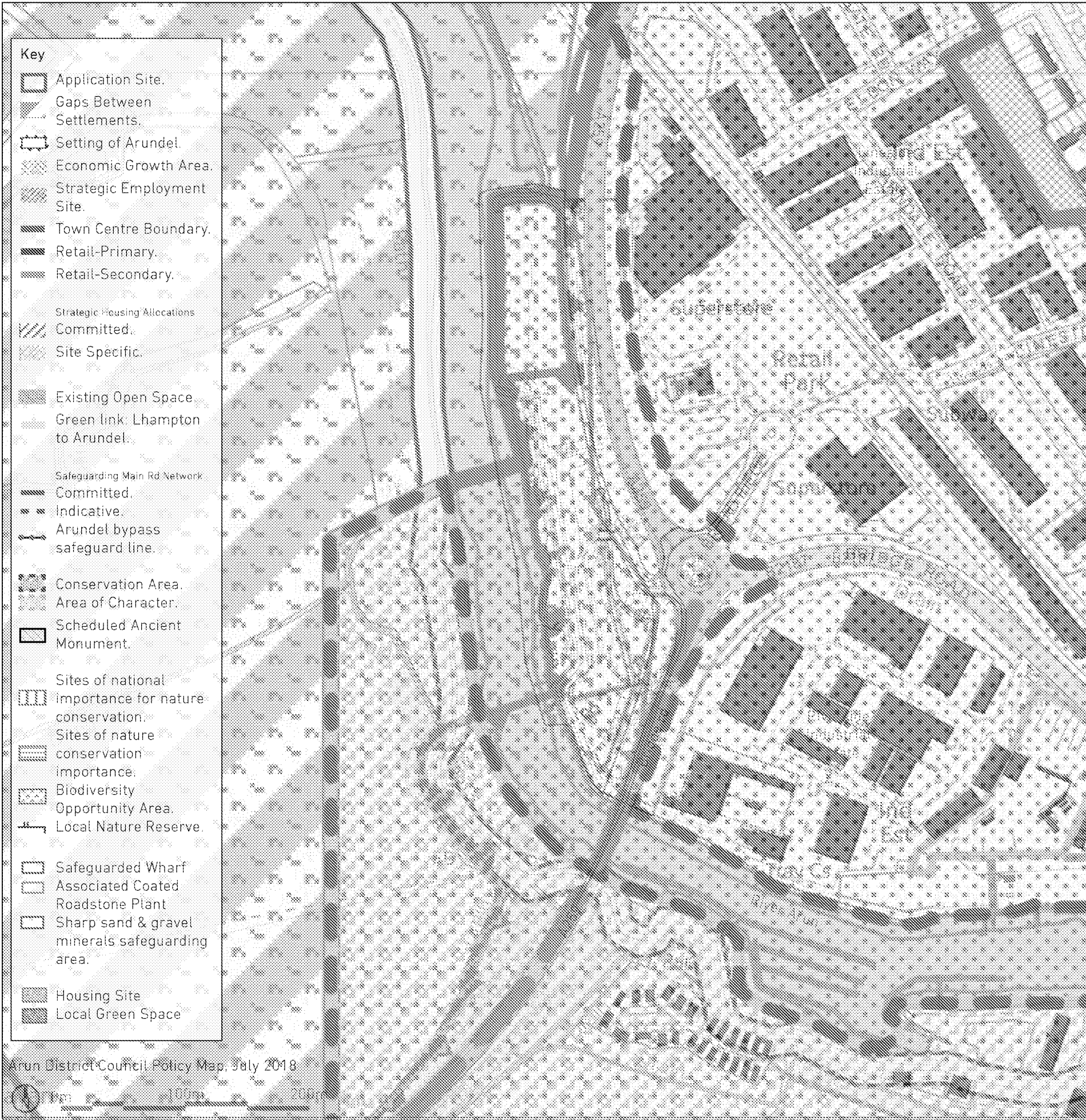
Potential areas for regeneration:

- Town Centre & Seafront
- West Bank
- Leisure Moorings
- Railway Wharf

Information References

Arun District Council, 'Policy Map:
Littlehampton and the Surrounding Area'
Arun District Council, 2018

Arun Growth Deal 2018 to 2023
Littlehampton:
Arun District Council, August 2018



3.3. Ecology & habitats

Ecological work has been undertaken by The Ecology Coop and is summarised below along with the findings of the surveys carried out to date. See phase 1 report and EclA for further information.

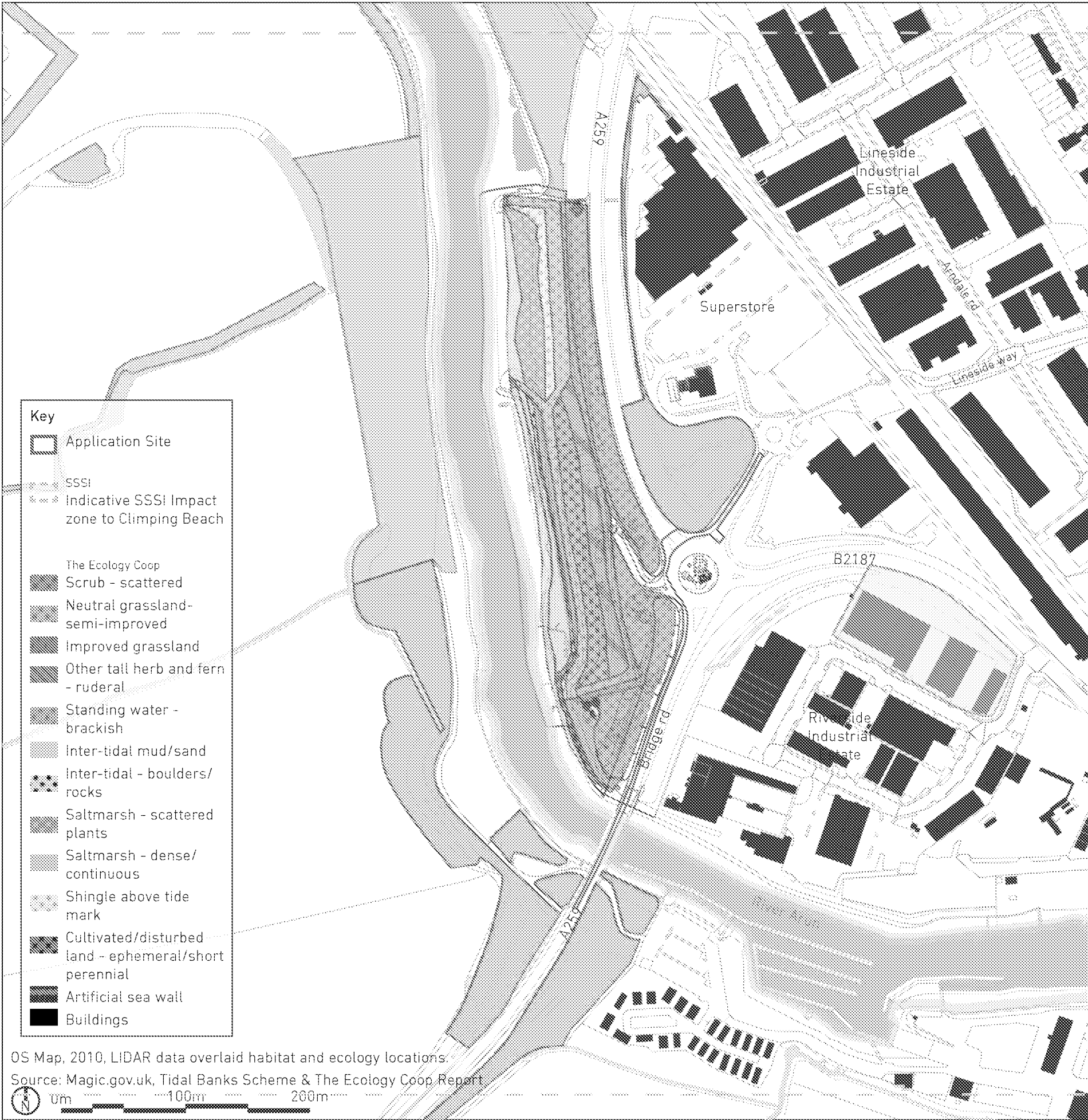
'The most ecologically important feature of the site is the intertidal mudflat and coastal saltmarsh habitats'.* 'The site has potential to support a range of breeding birds including priority species'.* The 'site is outside the zone of influence from all statutory and non-statutory designated sites'.*

- Badgers – No sign of badger activity.
- Bats – Surveys completed. Surprisingly low bat activity, opportunity for improvement through development.
- Bird Assemblage – Common and widespread species recorded during breeding birds survey. Surveys completed. Potential for a number of wintering shorebirds. Surveys to commence in October.
- Dormice –potential habitat is small and isolated so 'unlikely to support a population of dormouse'.*
- Great Crested Newts – No evidence on site.
- Invertebrates – Fieldwork complete, samples to be analysed.
- Invasive non-native species (INNS) – butterfly bush (Buddleia) identified on site but not listed on Schedule 9 of the Wildlife and Countryside Act (1981)*
- Other notable species – Habitats suitable for hedgehog and harvest mouse. Surveys to commence in October.
- Reptiles – Small population of common lizard. Potential for trans-location along stretch of embankment.
- Riparian wildlife – Presence of water vole recorded on site, opportunity for improved habitat within new development.

Based on the initial assessment it was identified that the intertidal habitat created in 2014 was establishing well and the idea to improve this habitat with a brackish lagoon area was dropped. Phase 2 survey work was begun in May 2019, in accordance with recommendations made within the Phase 1 assessment.

Information References

*Phase 1 report, The Ecology Coop, July 2019.



3.4. Existing infrastructure

An initial utilities search has been undertaken within and surrounding the site. Opposite is a summary of the infrastructure maps provided.

There are no existing infrastructure running across the site except for telecoms infrastructure in the south east corner of the site.

3.4.1. Gas

Gas pipework is present in the Riverside industrial estate and the lineside industrial estate.

3.4.2. Water

Southern water infrastructure is located within the Riverside Industrial Estate and the Lineside Industrial Estate.

3.4.3. Sewage

Foul and surface water sewage infrastructure is located within the industrial estate east of the site along Lineside Way and Arndale Road.

3.4.4. Electricity

Electricity infrastructure is present within the Tesco supermarket and River Industrial Estate.

3.4.5. Telecoms

There is an underground utility box owned by Vodafone with underground route up to the A259.



Information References
Desktop utility search, Groundwise Searches, July 2019.

3.5. Arboriculture

A tree survey and arboriculture impact assessment has been undertaken by Arbeco and a summary is provided below. Please see supporting documents for full survey and report.

- It was confirmed that no trees situated in or adjacent to the site were subject to Tree preservation Order or Conservation Area restrictions.
- Of the trees surveyed, six individuals and four groups were classified to be early mature life stage, two individuals were classified as young and eight individuals and three groups were classified as semi-mature.
- No trees were found to be in the mature or over mature classifications.

Arbeco have recommended that any trees that are selected to be removed should follow the advice below:

- To be replaced by a tree replacement ratio of 2:1
- The tree selection is appropriate to the site and chosen from a species palette in accordance with local tree planting policies.
- Should be included as part of a full Tree Planting Plan and Tree Planting Specification
- ADC Tree Policy makes references to a preference of a good mix of native species, ideally of local provenance.

The following is an indicative list of aquatic and non-aquatic native species provided by the Arbeco which could be used on site:

- Small trees; hawthorn, willow-leaved pear, willow-leaved sea buckthorn and tamarix.
- Medium species; grey alder, goat willow, Swedish whitebeam, field maple, resistant elm cultivars
- Large species; holm or turkey oak, small leaved lime.

Information References

Arboriculture Impact Assessment, Arbeco,
Sept 2019



3.6. Historic environment

An archaeological desk based assessment of the site has been undertaken by A.S.Lewes and a summary is provided below. Please see supporting documents for full survey and report.

Historic maps show the previous use of the site as a 'salt work' which extended throughout the site and to the westbank showing the sites previous involvement in the economy of Littlehampton.

A full search of the Historic Environment Record (HER) was obtained, (ref 2019/075), and listed building data was acquired from Historic England. The defined study area was 1km radius.

- The site does not lie within a Conservation Area, although the study area extends into the River Road Conservation Area.
- The site is located within the SSSI Climping beach impact zone.
- There are no historic Battlefields within the Study Area.
- There are no Registered Parks and Gardens within the Study Area.
- The northern half of the site is within 'The Setting of Arundel'.
- The site is not located within an Archaeological Notification Area, although there are 7 ANAs within the Study Area.

Key

Application Site

Scheduled Monuments

Archaeological Notification Areas (ANA's)

Conservation Areas

Listed Buildings

The Setting of Arundel Policy

Information References
Desk-based assessment, AS Lewes, Sept 2019



3.7. Access & transport

A transport assessment has been undertaken by Odyssey and a summary provided below. Please see supporting documents.

Existing services

- The site is served by an existing exit from the Bridge rd roundabout which is a five-arm roundabout.
- Vehicle speed limits approaching the roundabout are up to 60mph on the A259 and 30mph on the B2187.
- The closest bus stop is located within Tesco superstore car park, c.450m walk from the site, providing access to bus route 12 operating from Tesco via Littlehampton to Rustington Sainsburys with hourly weekday daytime services.
- Further bus routes including services 69, 665 and Coastliner 700 can be accessed on the B2187 Bridge road within c.500m walk of the site providing services west to Havant and Portsmouth and east to Worthing and Brighton.
- Littlehampton rail station (an end of the line station) which is serviced by Southern and some Thameslink trains is within 1km of the site.

Existing public right of way (PRoW)

An existing public right of way runs along the embankment located within the north site boundary line, see image adjacent. This begins at the bottom of the steps up to the A259 and provides public access to the riverfront.

A259 road traffic improvements

The Bridge road roundabout, which the application site is served from, is in the near future being upgraded to increase its capacity. A plan of the proposed works which is understood will be undertaken is presented opposite and shown in purple on the opposite plan.

Kingley Gate – Section 106 Agreement

A contribution payable to the West Sussex County Council (WSCC) for the Bridge rd roundabout footway and/or cycleway was outlined in the [Kingley Gate S106 agreement in Schedule 9](#) dated 22nd March 2012 as part of the planning application (ref LU/355/10). This shows a new cycleway emerging from the A259 road bridge towards the site access, crossing two arms of the

roundabout and runs along Broad Piece road to finally connect into the existing footpaths and cycle paths. The instalment of these pathways would provide connections from the site to Littlehampton rail station, the nearby supermarket, Kingley Gate and towards the nearest local centre along the A284.

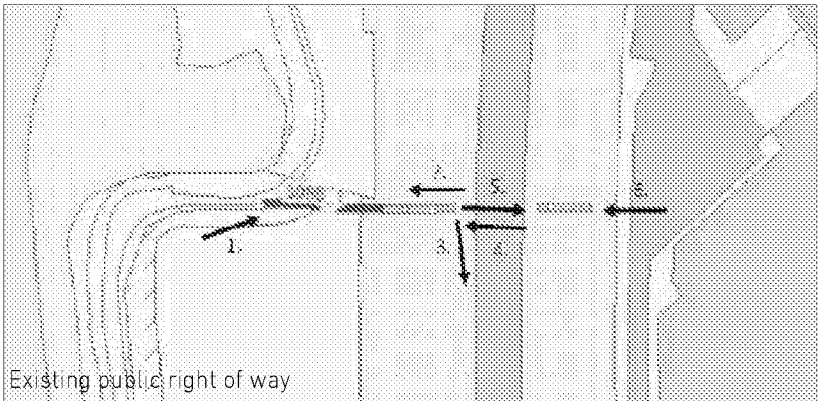
West Sussex County Council Highways Department provide an independent pre-application service. The design team have commenced consultation with the Highways Department and the feedback from this will inform the planning application.

Arun District Council Policy TSP3 applies to the adjacent highways land. This refers to the need for 'Safeguarding the main road network'. WSCC are considering the remaining life of the A259 bridge and other works if any to the A259. Presently the proposal incorporates the previous plans to improve the A259 roundabout and create adjacent and cycle footpaths. However, should the plans change then it appears there is ample scope within the existing highways land to accommodate other options without impending on or adversely affecting the development proposals.

The distance from the edge of the existing highways to the site / land ownership boundary varies from between 24 and 20 m, narrowing locally to 17m adjacent to the bridge. This appears to be similar on the eastern side of the road, if not slightly larger and there is a wider area on the east of the roundabout. The existing two lane carriageway is approximately 7.0m wide, with lane widths of approximately 3.5m. An additional road lane + cycle lane and footpath may increase the width by approximately 6m (3m for the road and 3m for the foot and cycle path). Therefore, if WSCC determined that the road needed to be increased from 2 to 3 or 4 lanes then there should be sufficient room to provide for this without need to use any of the application site, either during or after the construction. Furthermore WSCC would still retain a c. 14m wide strip of land between the highway and the site boundary for future maintenance.

In summary pre-application consultation advice is being sought from WSCC and in any event it seems that the proposed development would not impact on the safeguarding of the main road network.

Please see transport assessment for further information.



3.8. Land contamination

A phase 1 Environmental Report for the application site has been undertaken by GO Contaminated Land Solutions and a summary is provided below. Please see supporting documents for full survey and report.

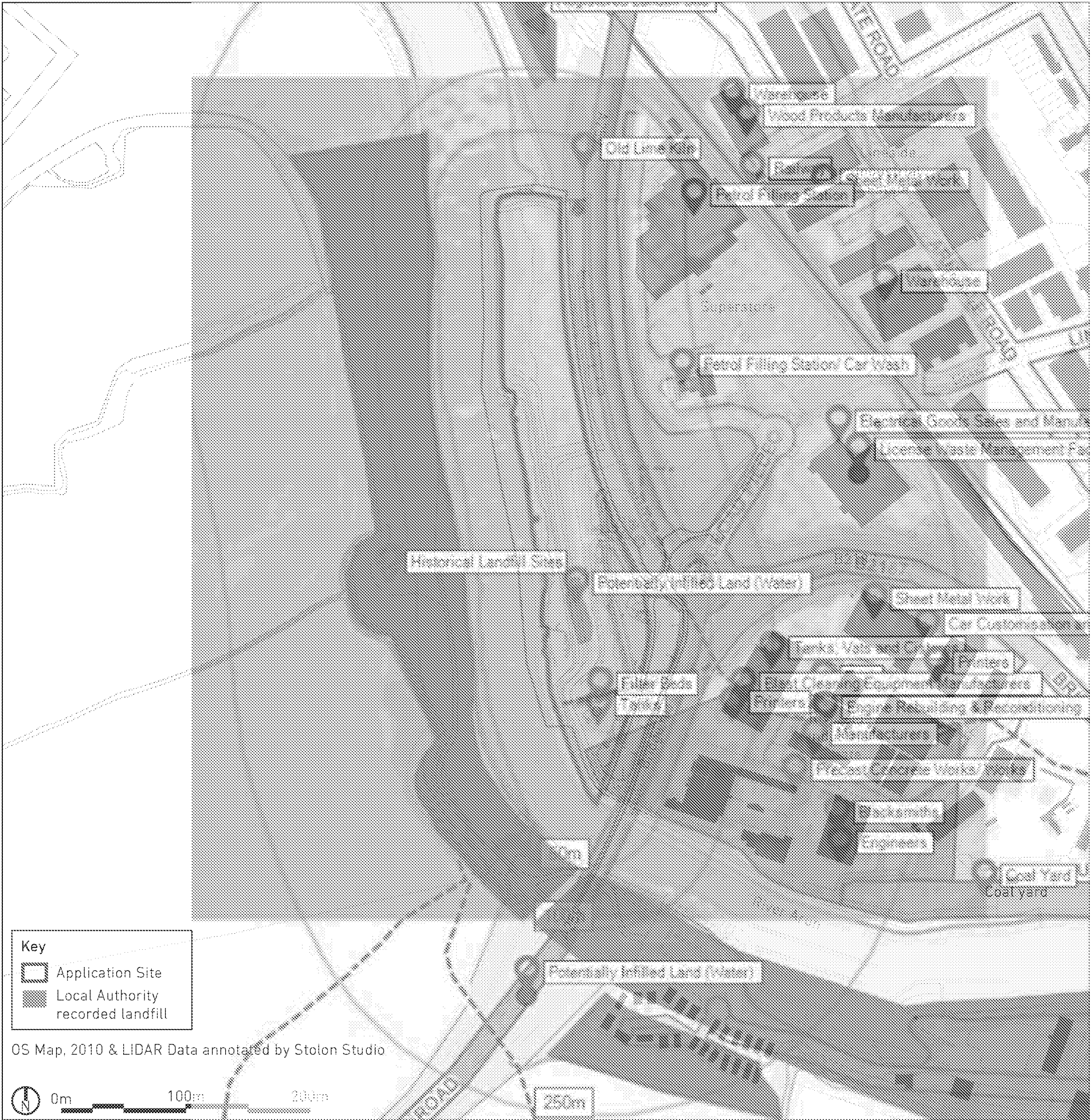
The map opposite summarises shows the potential sources of contamination within 250m of the site. This is detailed further within the consultant report.

The general topography is flat however the river flows to the south, this is assumed to be the general direction of the hydraulic gradient. Therefore, the sources to the north and within the near vicinity are considered to have the most potential to impact the site.

These include a landfill, petrol filling station, sheet metal work, printers and works.

The report concludes that based upon the information currently available, there would appear to be a moderate risk of potentially significant contamination on site.

Please see land contamination assessment for further information.



Information References

Phase 1 Environmental Report, GO
Contamination, Aug 2019

3.9. Noise assessment

An Environmental Noise Assessment has been undertaken by Acoustic Associates, August 2019 and a summary is provided below. Please see supporting documents for full survey and report.

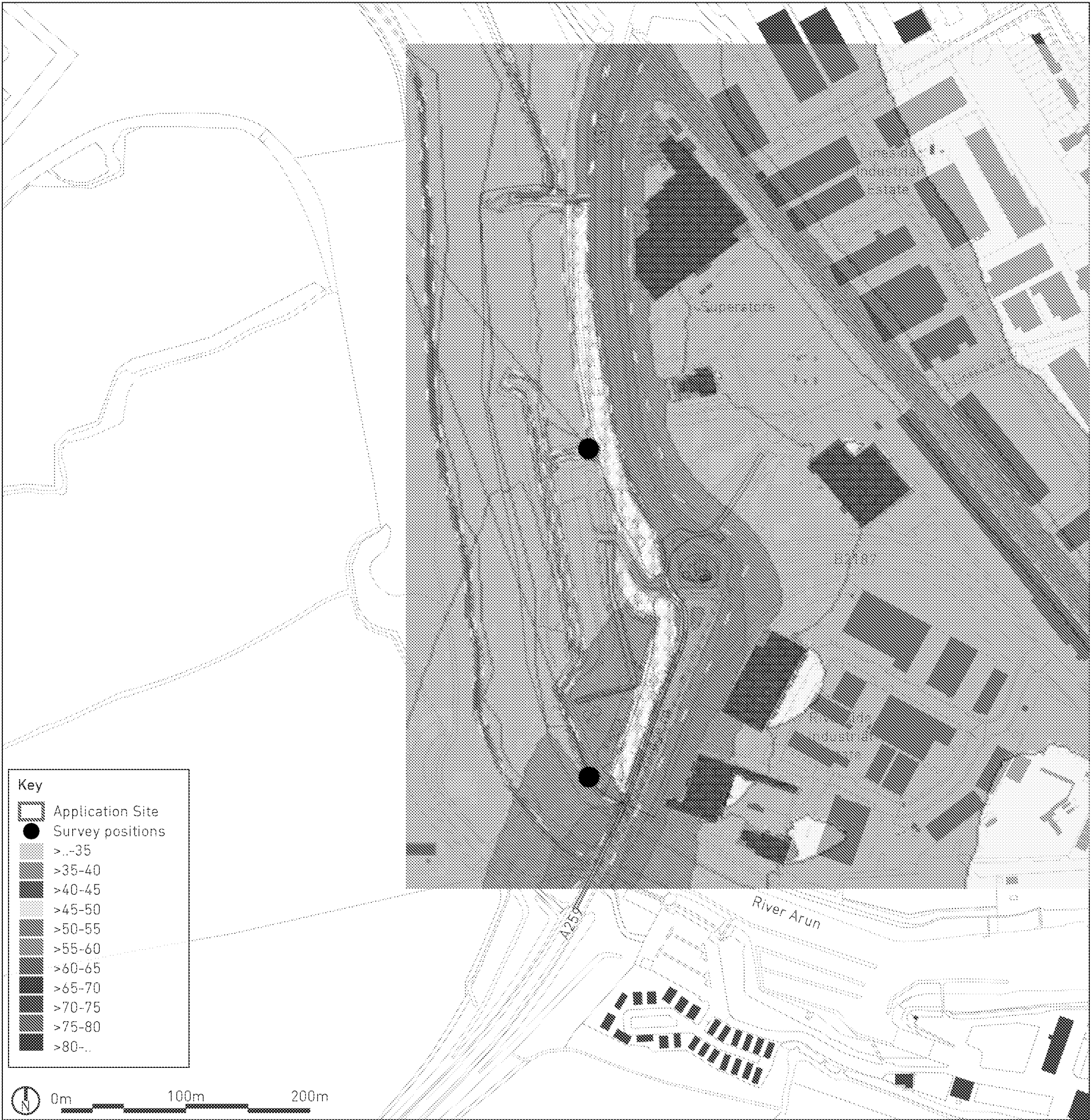
A noise survey was carried out from the 11th July 2019 to the 17th July 2019 in or to measure noise levels associated with the nearby A259 road. Noise measurements were taken in two locations marked on the plan opposite.

The noise map opposite takes into consideration not only existing road and rail noise but also future traffic predictions should the A259 road improvements take place.

The calculations within the report show that even at locations where the sound levels are predicted to be at the highest on the site the required Sound Reduction Index (SRI) can be achieved using off the shelf products.

It is also worth noting that once the construction is complete the buildings will act as a barrier creating 'shadow zones' where noise levels will be lower, and therefore more suitable for outdoor amenity spaces in these areas.

Please see noise assessment for further information.



Information References

Environmental Noise Assessment, Acoustic Associates, Aug 2019

3.10. Flood zones & levels

Flood risk has been assessed through Ambiantal and is detailed in the accompanying Flood Risk Assessment (FRA). The following pages include a summary of the flood risk to the application site.

The EA flood map for planning demonstrates that the proposed development lies within Flood Zone 3a with a high probability of greater than 1in100 (1%) of river flooding or a high probability of greater than 1in200 (0.5%) of tidal flooding in any year, but in an area that benefits from flood defences.

As some of the redline boundary extends into the River Arun in front of the defences it is assumed that these areas are within Functional Floodplain, and would therefore be classified as Flood Zone 3B.

Flood levels have been provided by the Environment Agency and are listed below:

- 1in200 undefended 3.53m AOD
 - 1in200 defended 3.40m AOD
 - 1in200 +CC Undefended 5.13m AOD
 - 1in200 +CC Defended 5.00m AOD
 - 1in1000 Undefended 3.66m AOD
 - 1in1000 Defended 4.13m AOD
 - 1in1000 +CC Undefended 5.26m AOD
 - 1in1000 +CC Defended 5.73m AOD
-
- Proposed FFL = 5.60m AOD

Please see Flood Risk Assessment for further information.

Information References

Environment Agency Flood Products, 2019.

Flood Risk Assessment & Sustainable Drainage Strategy, Sept 2019.



3.11. Flood defences & topography

The existing flood defences on site are set at +4.85m providing 40-45% of the site with a Standard of Protection of 1:1000 +CC defended.

The maps opposite indicates that all of the flood defences within the site are maintained by a third party. Therefore, a 16m easement for Environment Agency access is not required and development can be built closer to the flood defences. The Environment Agency require the applicant to provide details of how the flood defences would be maintained.

In addition, an adaptive approach to the flood defence wall will be incorporated into the detailed design of the flood defence walls.

Please see Flood Risk Assessment for further information.



Information References
Westmore, Glen. Local Flood Risk West
Sussex County Council LLFA, 16 May 2014
EA Flood Products, 2019

3.12. Watercourses

The site is not located within an EA groundwater Source Protection Zone.

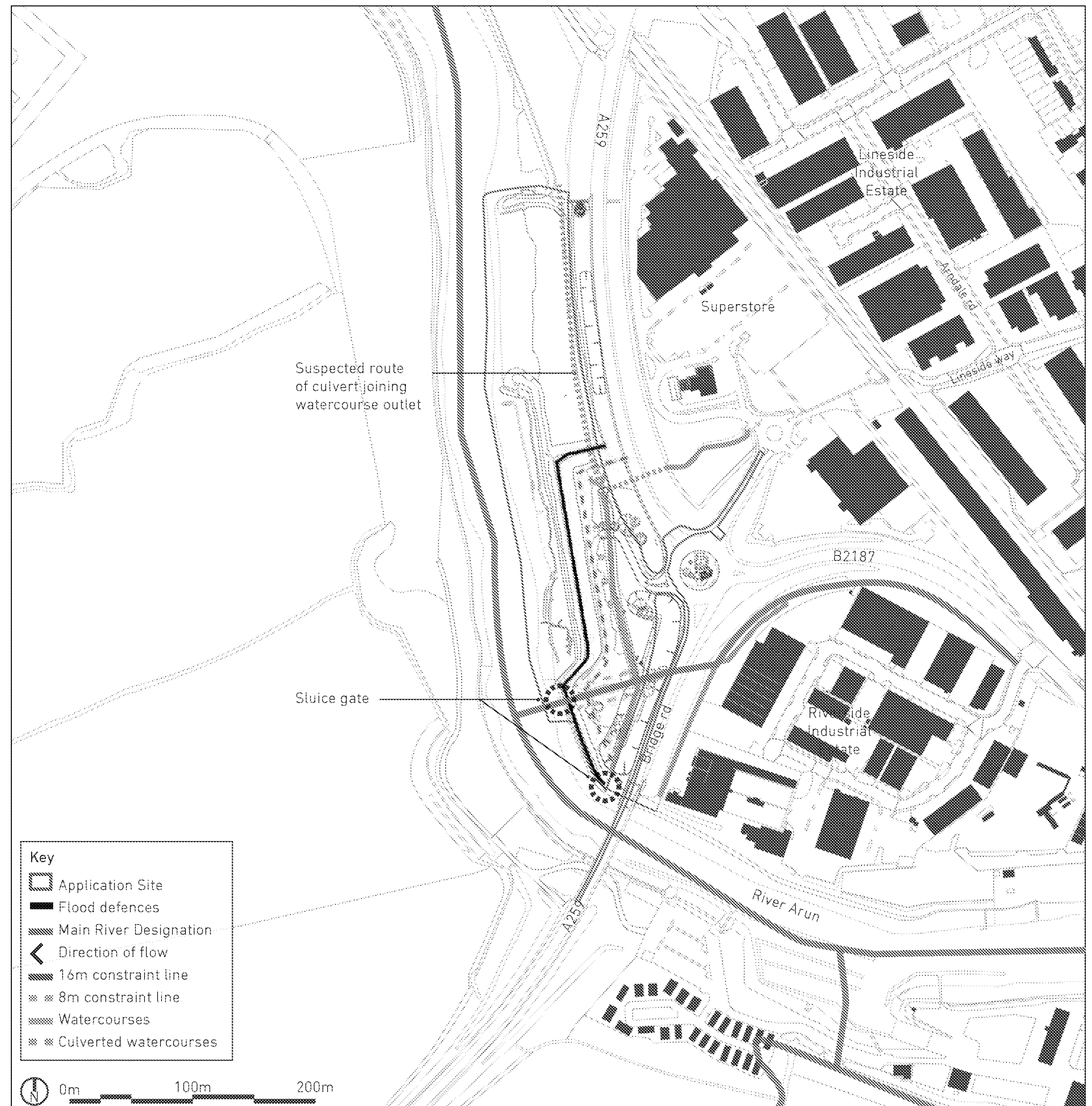
The site is bounded by the River Arun, a designated main river, and there are two watercourses within the site boundary. The map opposite illustrates the existing watercourses running through the site.

A designated main river ditch enters the site under the southern arm of the A259 (between the roundabout and the bridge), through a 1200mm diameter culvert. This flows through the southern portion of the site in an open channel, before being discharged via a 600mm diameter culvert.

An Ordinary Watercourse enters the northern part of the site through a 2000mm arch bridge from under the A259. This flows through an open watercourse and drains into the designated main river ditch and discharges via the same 600mm diameter culvert.

The main river sluice gate located in the south west corner of the site is maintained by the Environment Agency. Access to the sluice gate and the main river designated drainage ditch should be provided for the Environment Agency to carry out maintenance.

Please see Flood Risk Assessment for further information.



Information References

Flood Risk Assessment, Ambiental,
September 2019.

3.13. Surface & ground water flood risk

Surface water flooding
The Environment Agency water flood mapping, see opposite, indicates that there is a risk of surface water flooding within the site, however, this can be managed by providing suitable surface water drainage scheme to alleviate the risk of flooding.

The EA Surface Water Flood Depth Map shows the risk of flooding event in high, medium and low risk scenarios. Overall, the risk of flooding from surface water can be considered relatively low.

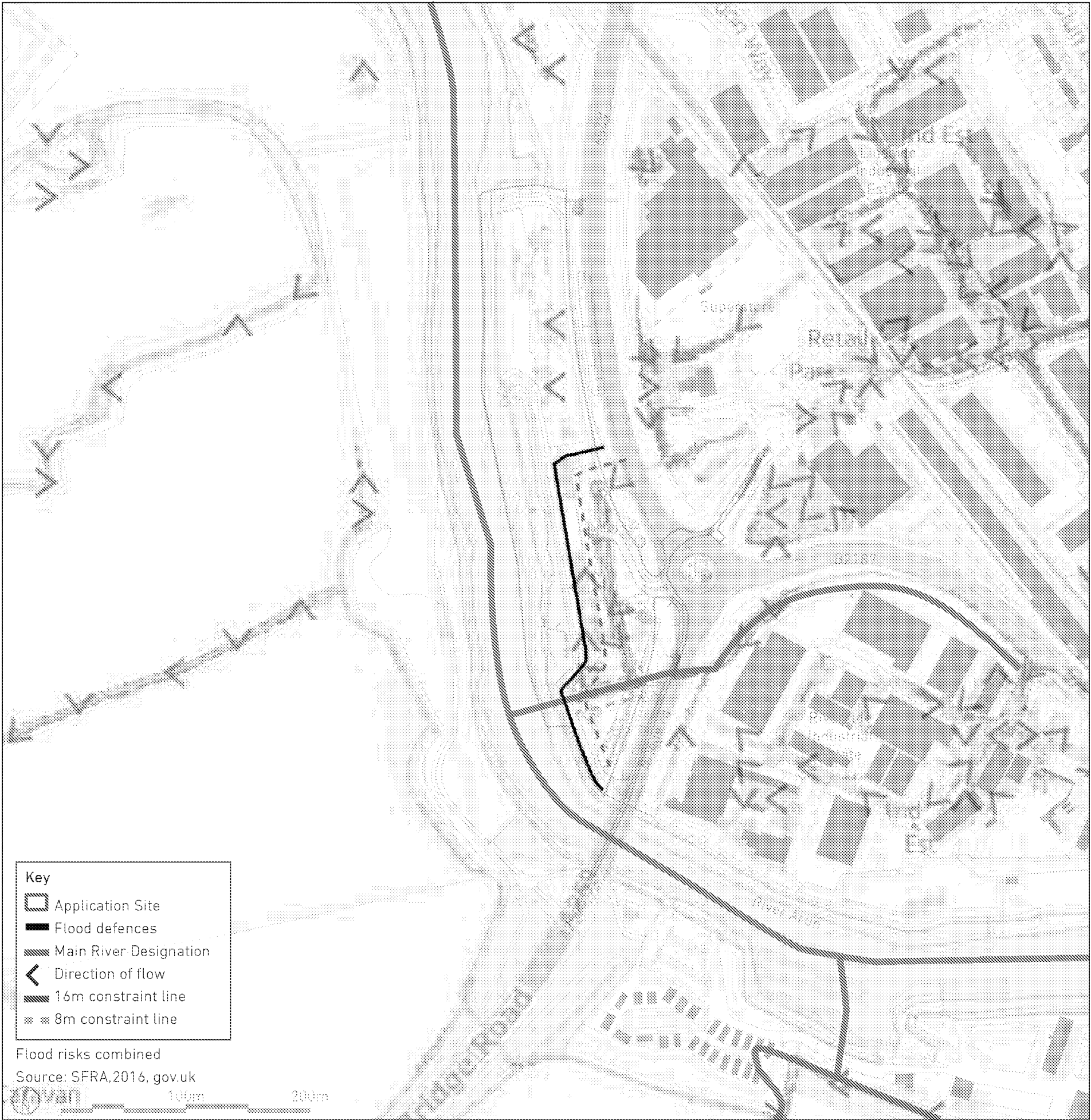
Groundwater flooding
The site is located in an area with the potential for elevated groundwater levels, and therefore this risk will need to be considered during construction, and operation of the site.

According to Arun District Council SFRA, the site has a $\geq 75\%$ probability of being susceptible to ground water flooding.

The mitigation measures to deal with the tidal flood risk during the operational phase, will provide suitable controls to the risk of groundwater flooding.

Please see Flood Risk Assessment for further information.

Information References
Westmore, Glen, Local Flood Risk West
Sussex County Council LLFA, 16 May 2014
EA Flood Products, 2019
Flood Risk Assessment, Ambiental,
September 2019.

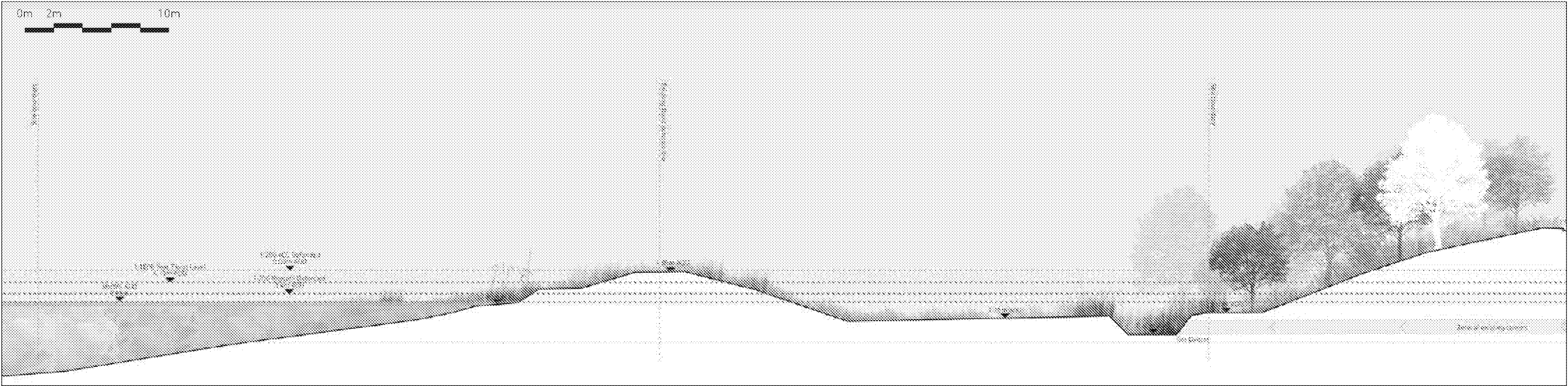


3.14. Site sections



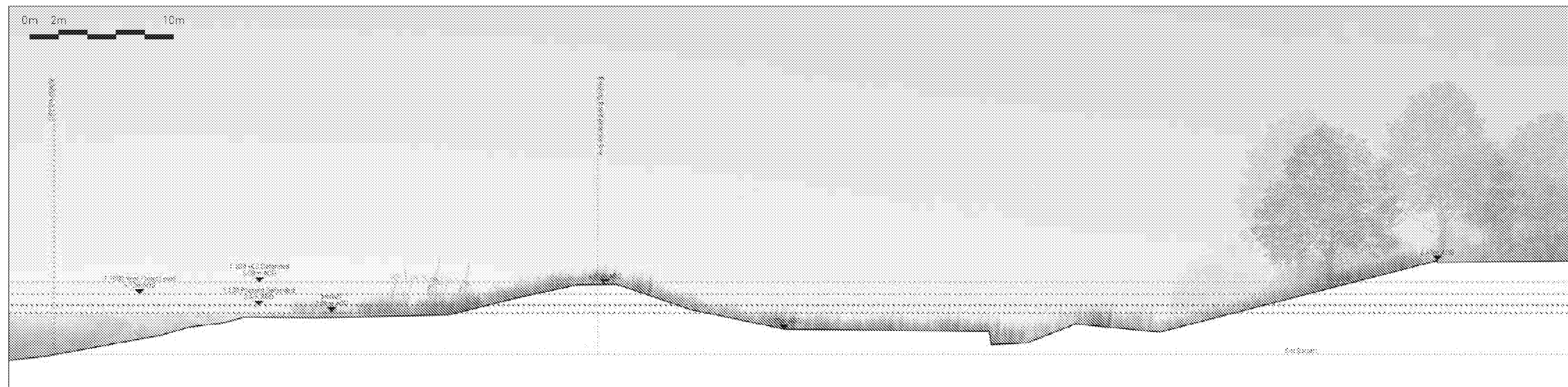
Section A-A

Extent of topographical/LIDAR survey



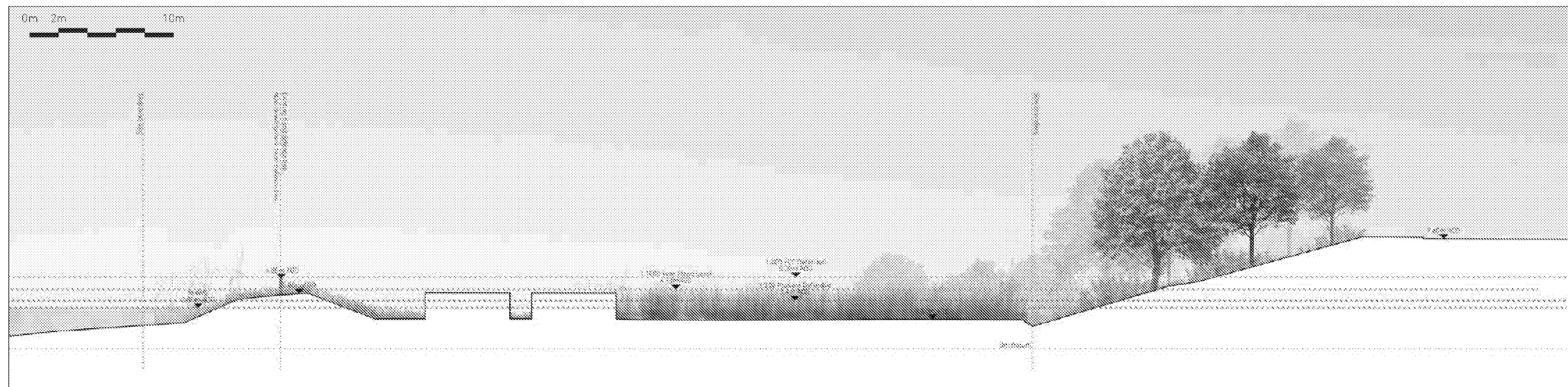
Section B-B

Extent of topographical/LIDAR survey



Section D-D

Extent of topographical/LIDAR survey



Section F-F

Extent of topographical/LIDAR survey

3.15. Summary of constraints

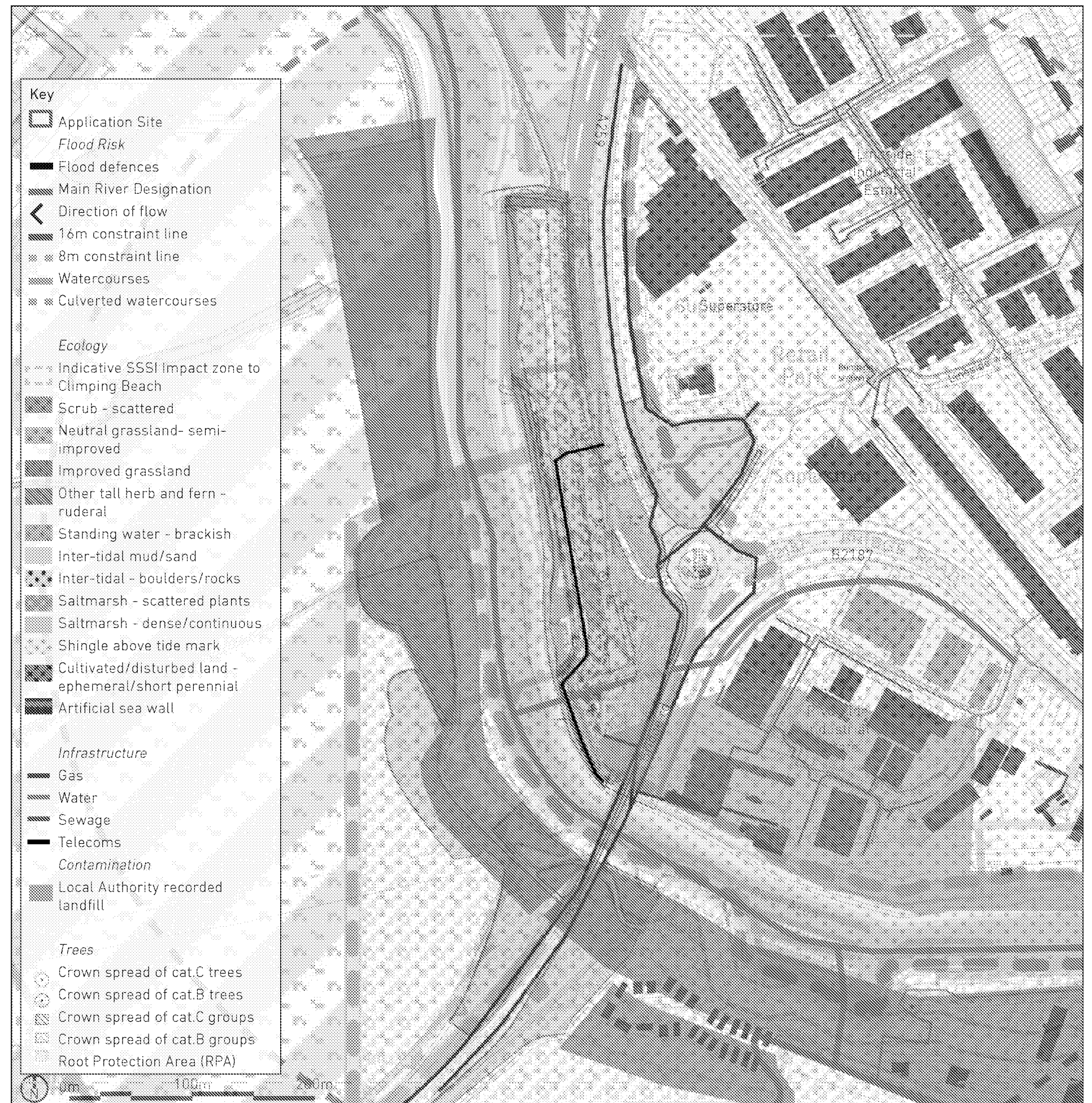
All constraints explained previously have been overlaid to create the constraints map opposite and a list of the key constraints are below:

The key constraints are outlined below:

- Flood Risk
- Main River Designation
- 'Setting of Arundel' Boundary
- Service Connections (Challenge)
- Site within biodiversity opportunity area

Other Constraints:

- Noise from A259
- Possible ecology along ditches
- Contamination sources within and surrounding the site
- Ecological Impacts
- Climping Beach 'SSSI Impact Zone'
- Proposed FFL = 5.60m AOD

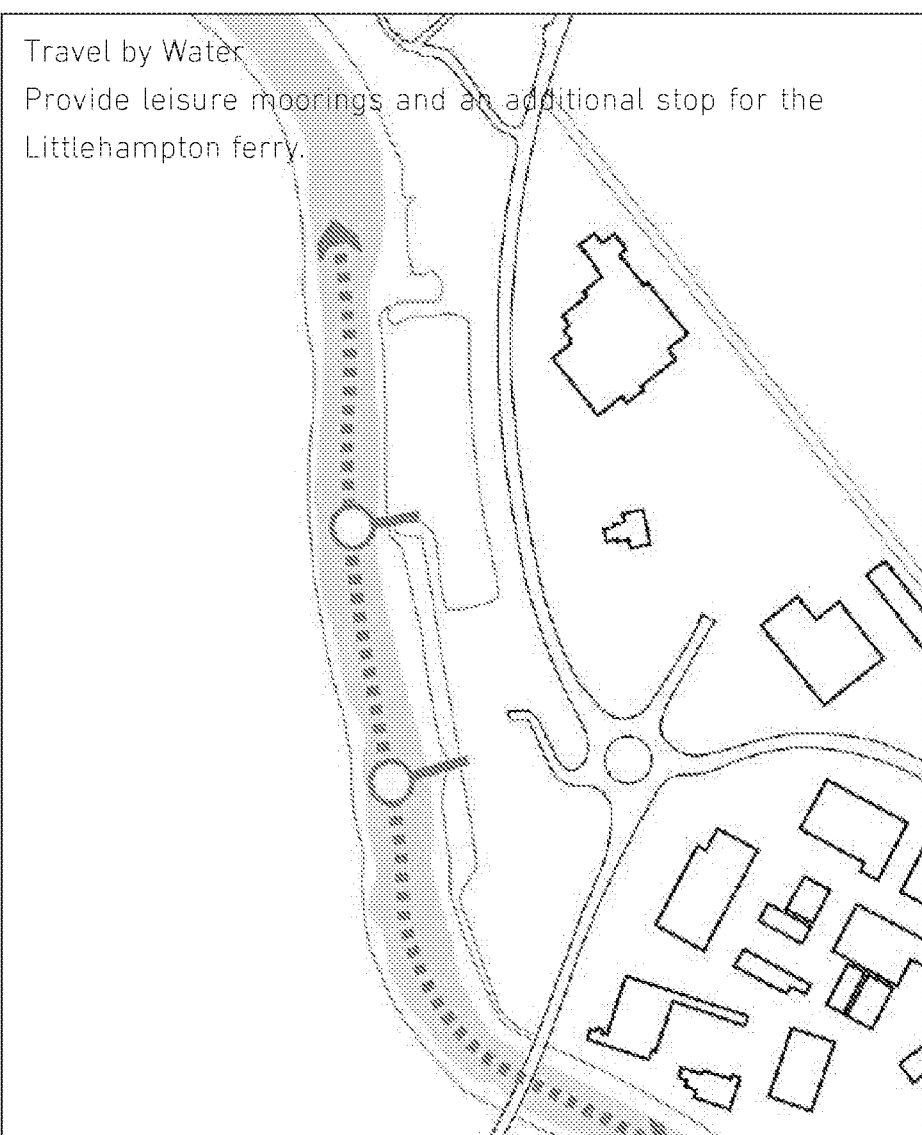
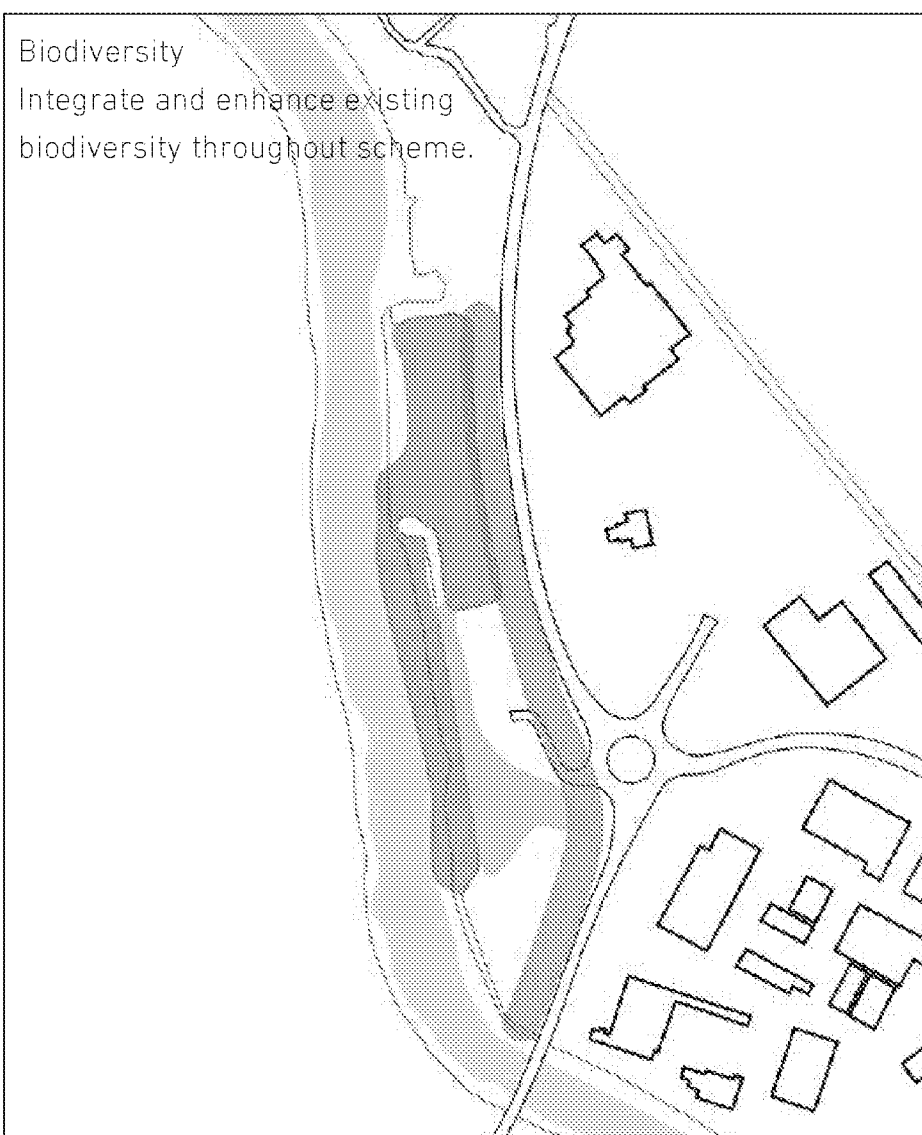
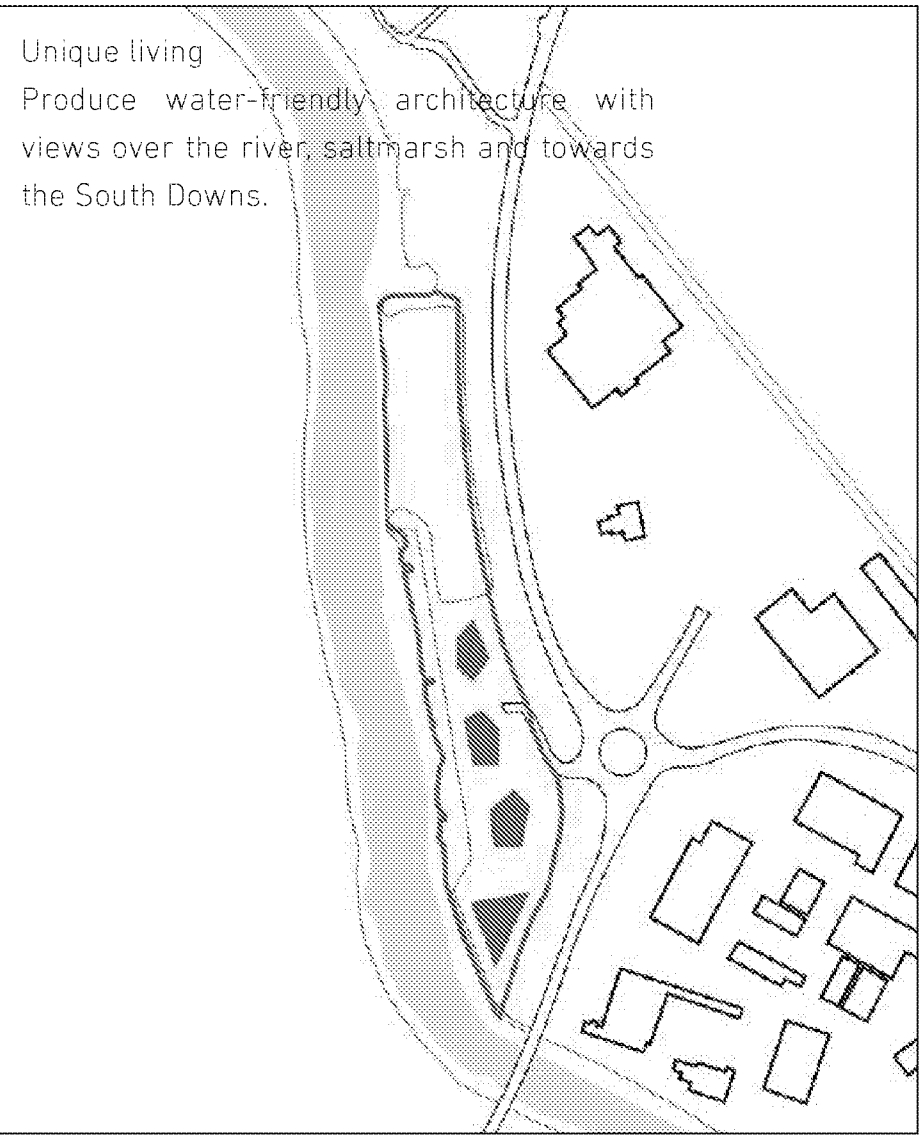


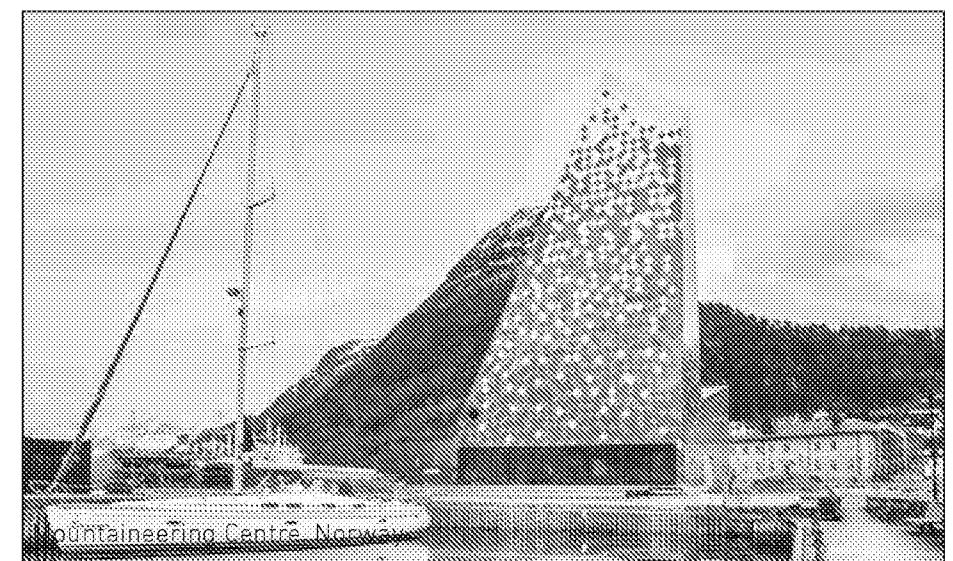
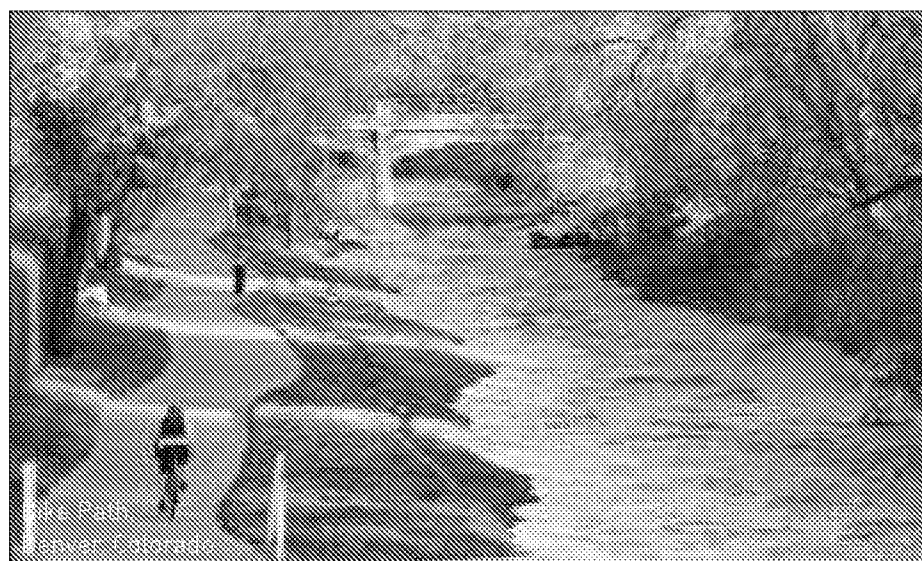
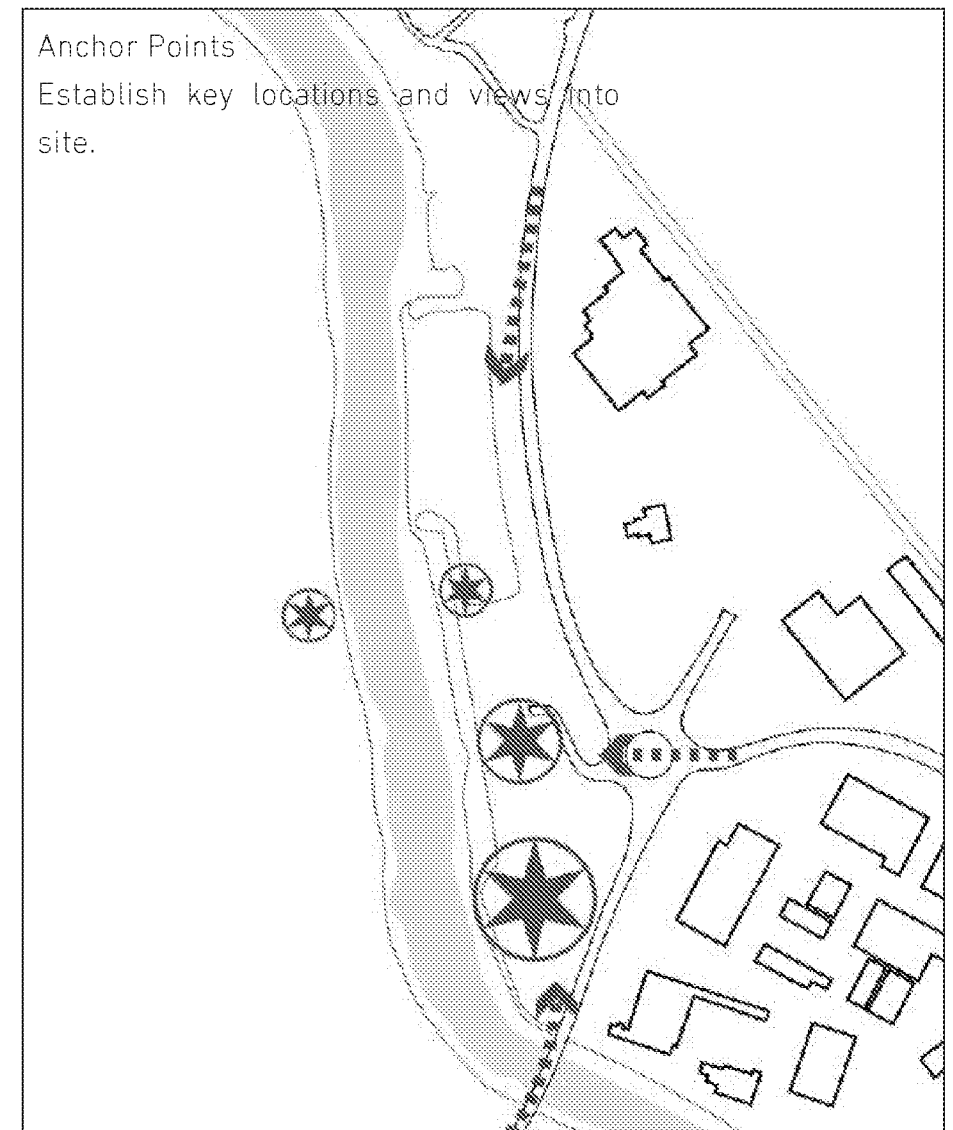
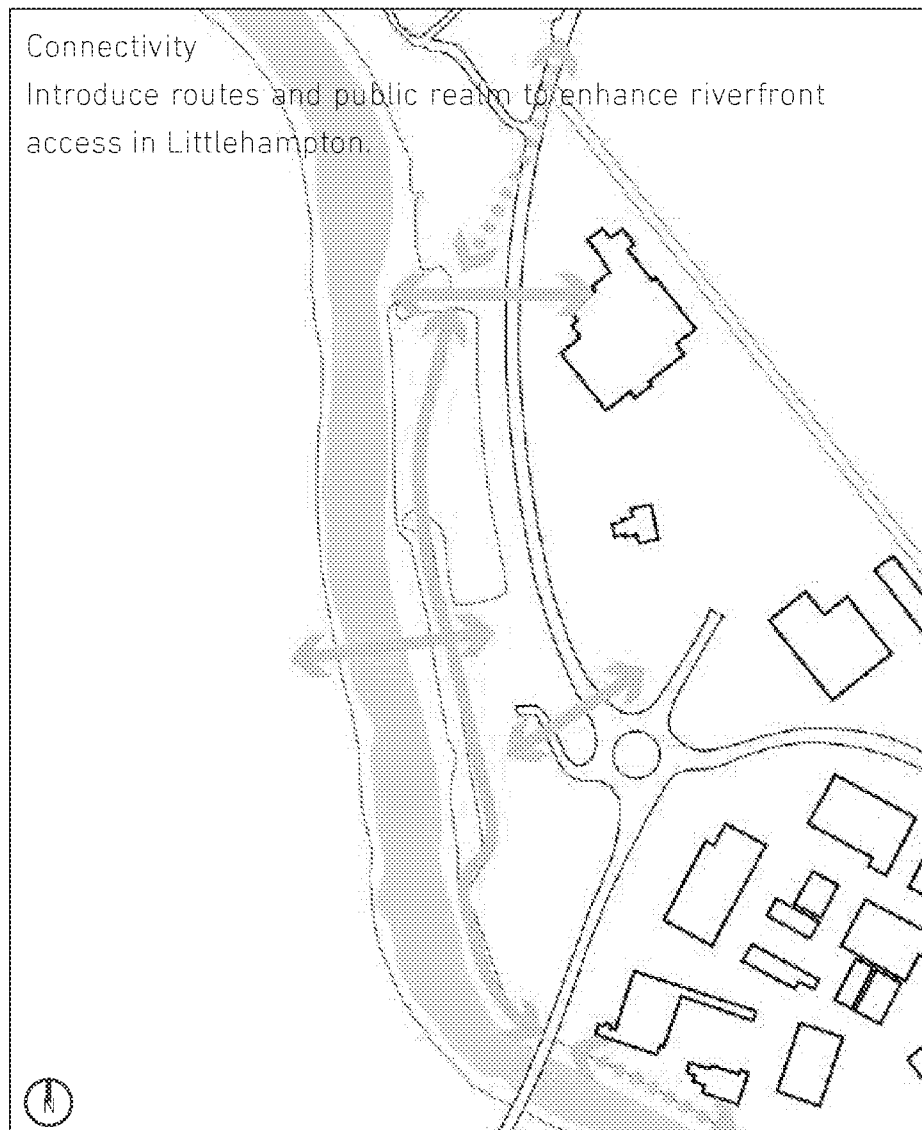
Information References

Consultant's information overlaid on map.

4. Opportunities

4.1. Opportunity







Connectivity

Establish connections to the West Bank and enhance existing routes into Littlehampton.



Activate Waterfront

Introduce routes and public realm to enhance riverfront.



Gateway

Establish key locations and views into site for anchor points in scheme.



Unique Living

Produce water-friendly architecture with views over the river and the South Downs.



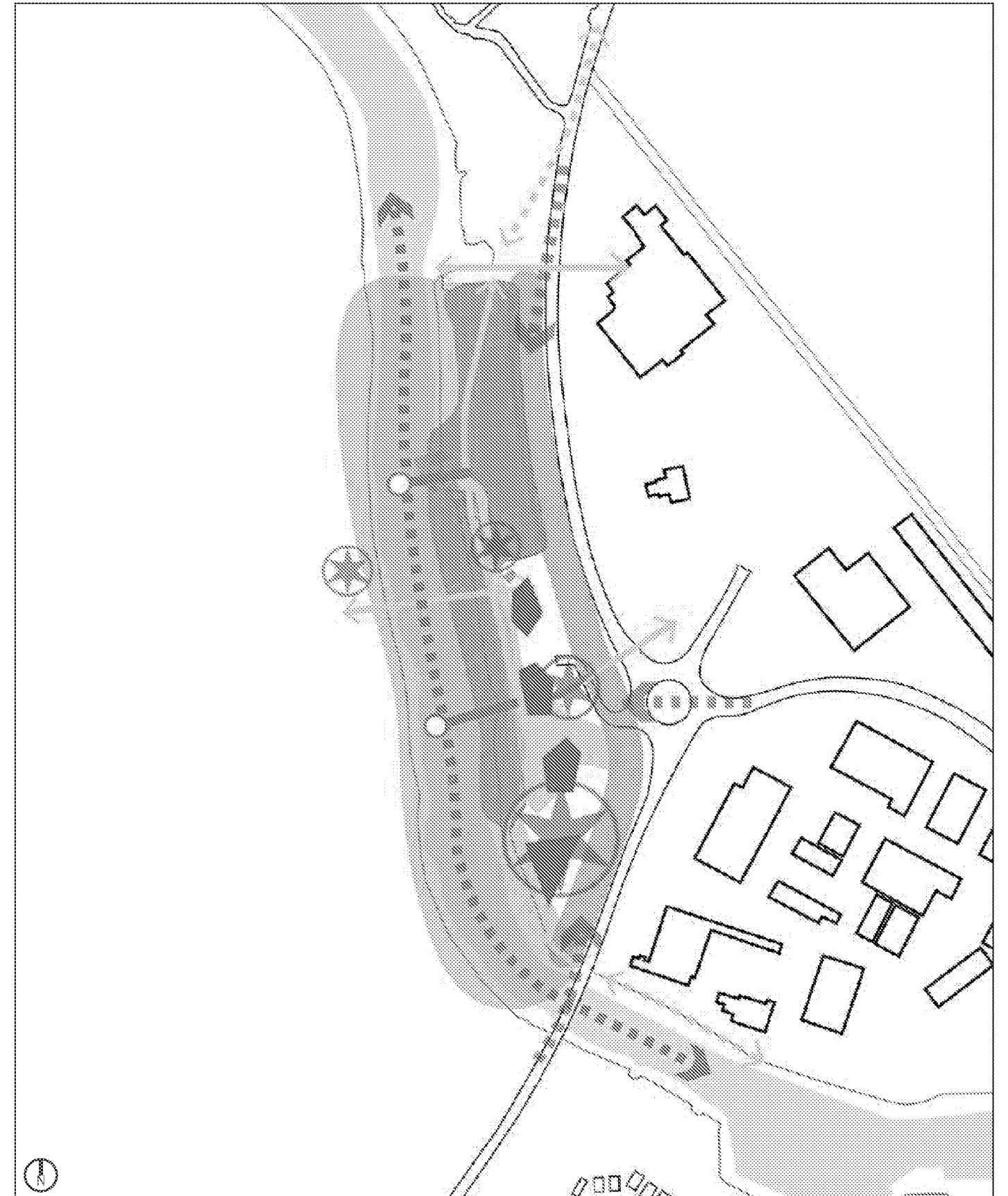
Biodiversity

Integrate and enhance existing biodiversity throughout scheme.



Travel by Water

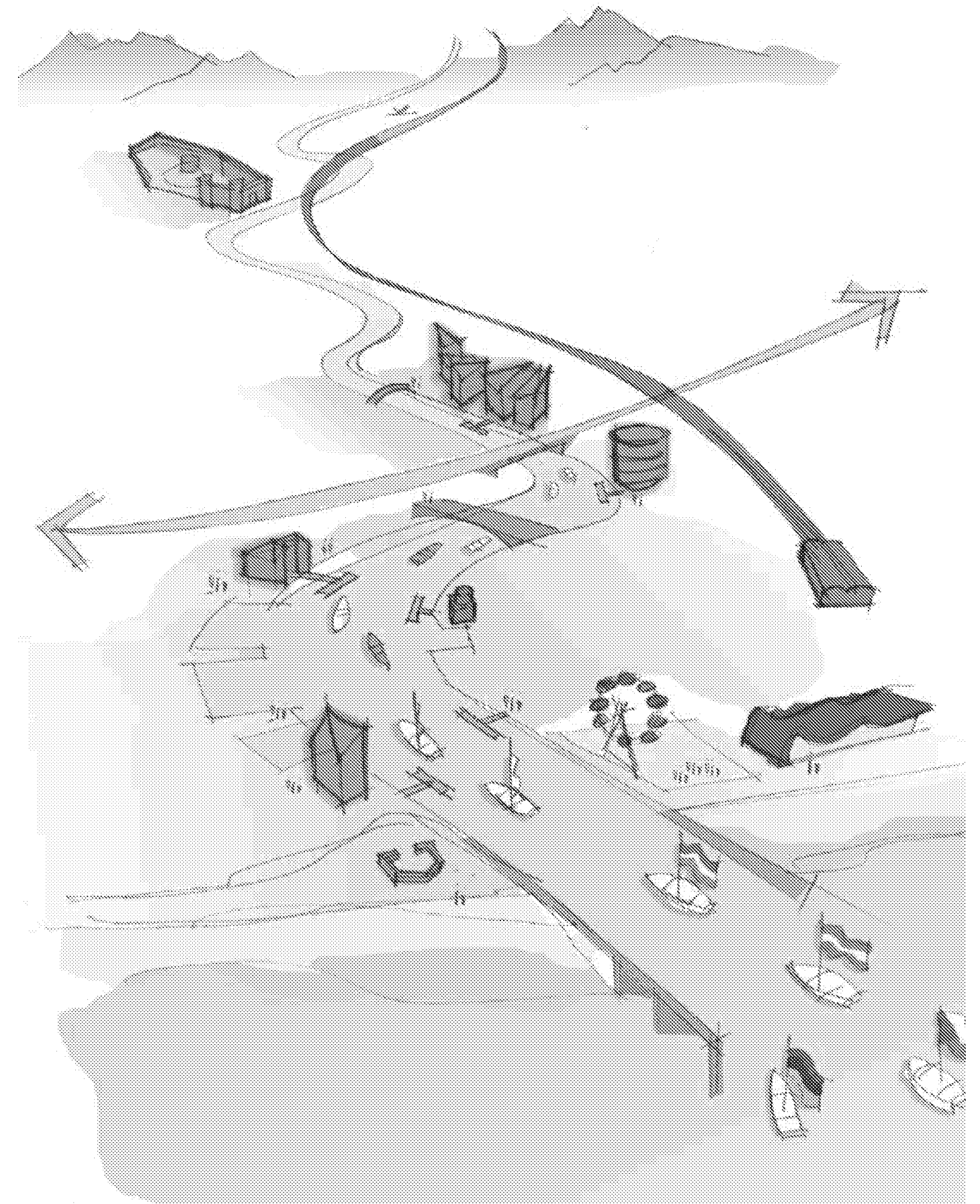
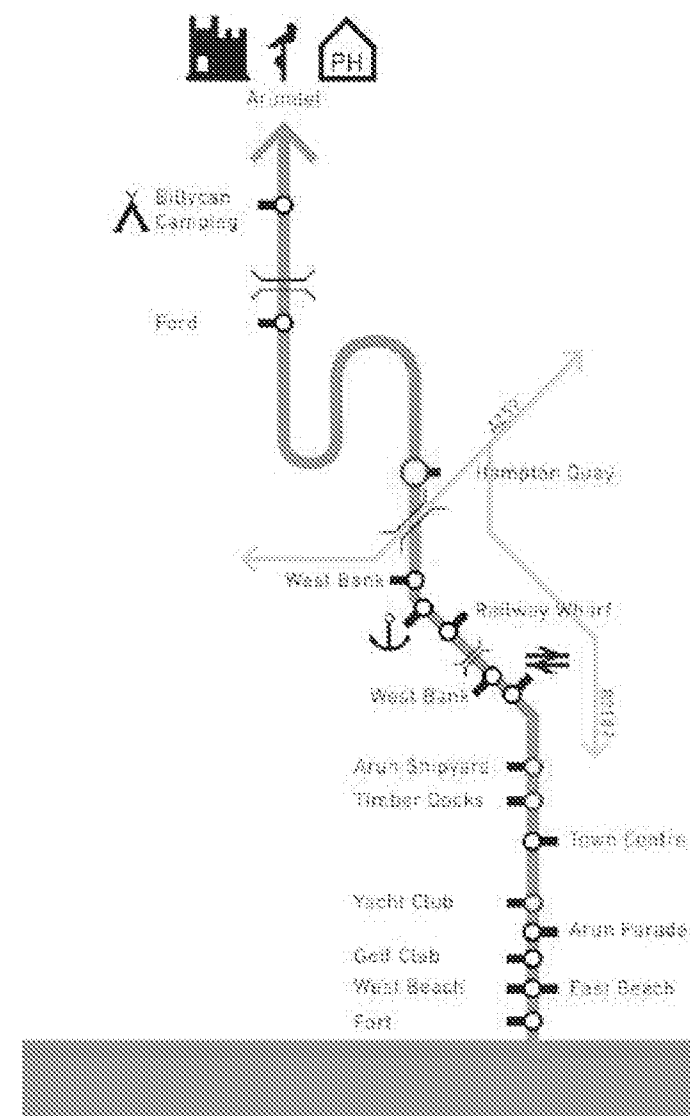
Provide additional moorings and ferry stop for the Littlehampton ferry.

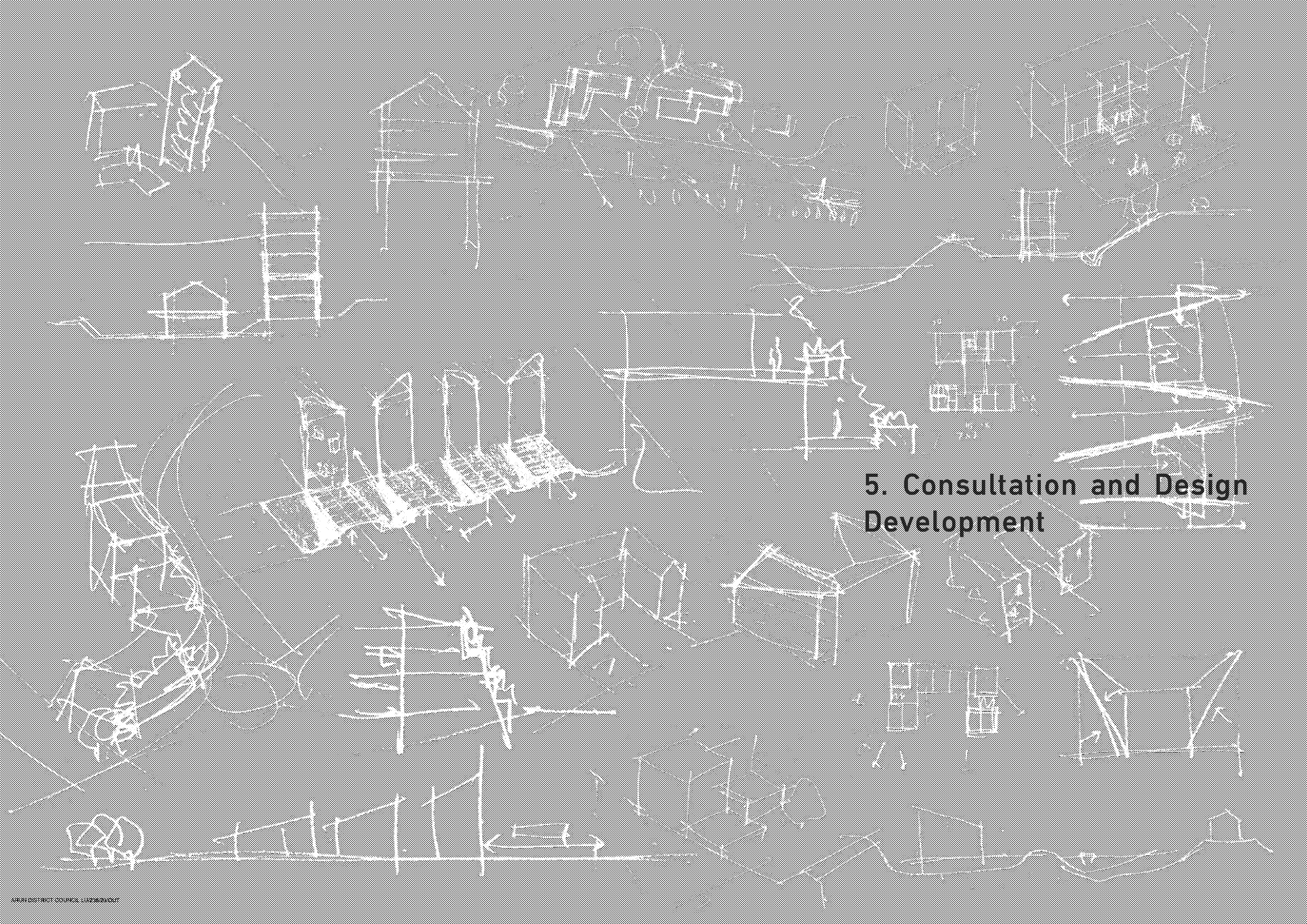


4.2. Vision

The proposal for Hampton Quay references its historic use providing a gateway into Littlehampton by river and road with a new high quality, mixed use riverside development. It will provide public access to the river alongside new homes, moorings for leisure craft.

The development will embrace a holistic design approach, that incorporates improvements in biodiversity, habitat, water quality, flood resilience, sustainable homes, adaptation to climate change, new cycle and riverside walks, and a new water ferry stop with links to Littlehampton and Arundel.





5. Consultation and Design Development

5.1. Initial concept studies

The following initial concept studies explored three key ideas for developing the site taking into account the previously illustrated opportunities. Each option provides an approach to creating a unique way of living along the River Arun exploring massing, drainage, access and landscape.

The preferred option was the open courtyards. It was felt that this embraced the river, without creating a visually dominant building along the river frontage, as so often happens.

The courtyards were conceived as individual buildings that would sit together as a suite of buildings to create a cohesive whole.

It was initially envisaged that the road would run along the river side of the site but later this was changed to the rear so that it did not interfere with the enjoyment of the river and that other means of transport such as walking and cycling could be prioritised.

Key concepts from an early stage:

- Riverside walk
- Public accessibility to the river
- High quality architecture
- Sustainable transport
- Sustainable drainage
- Sustainable energy

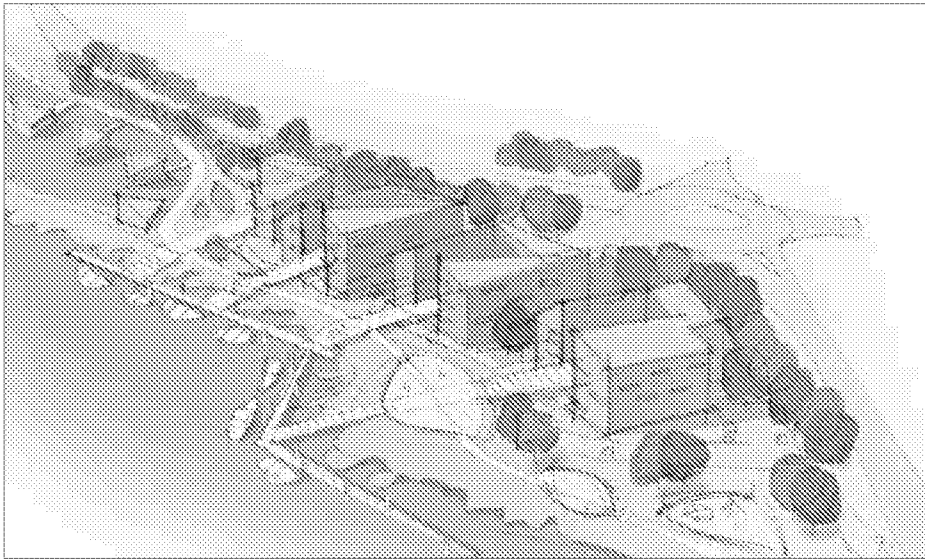
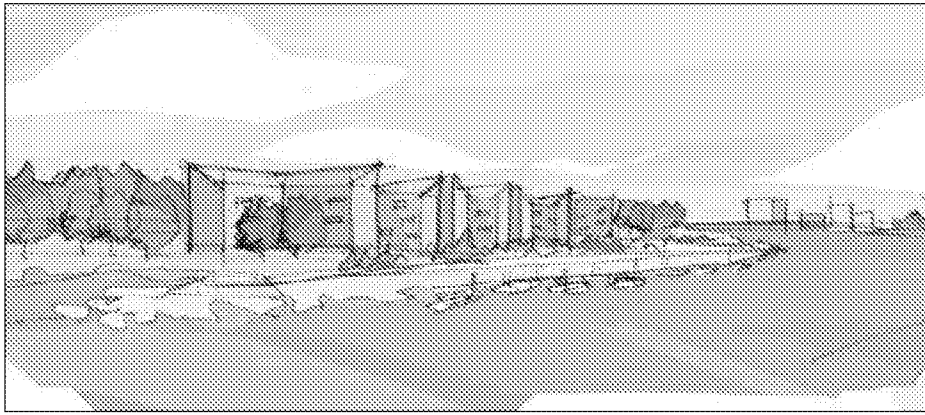
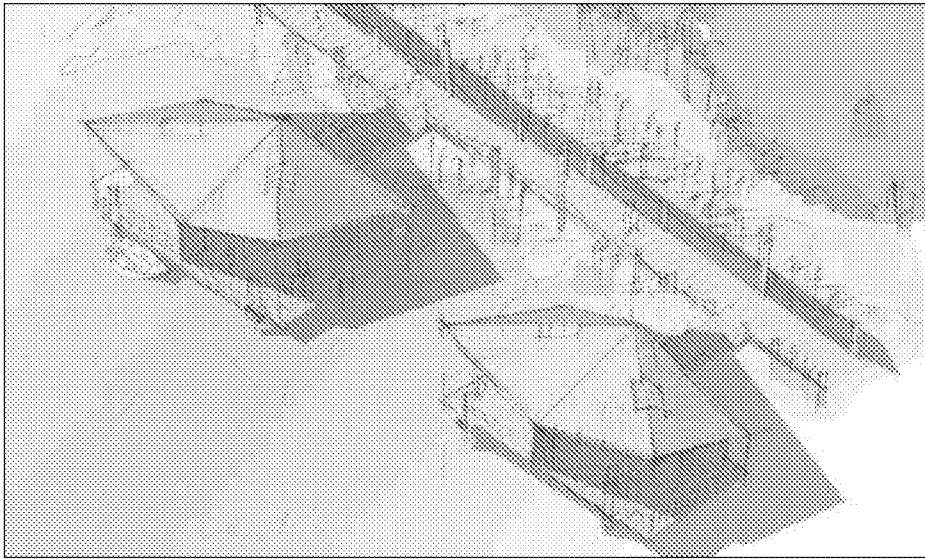
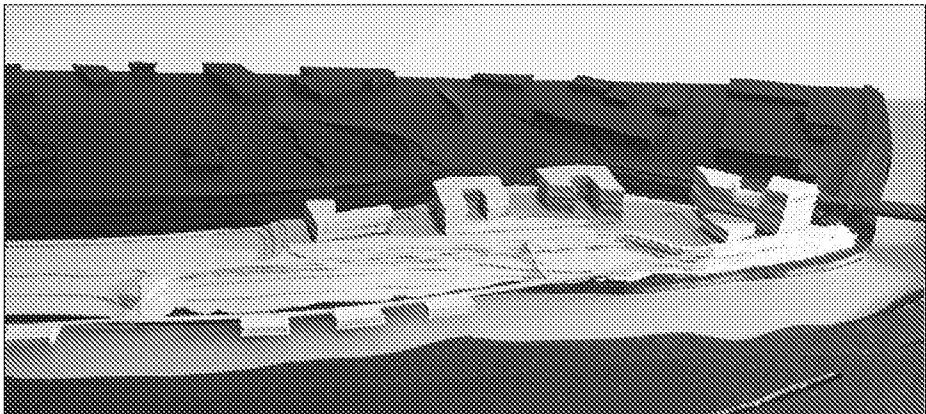
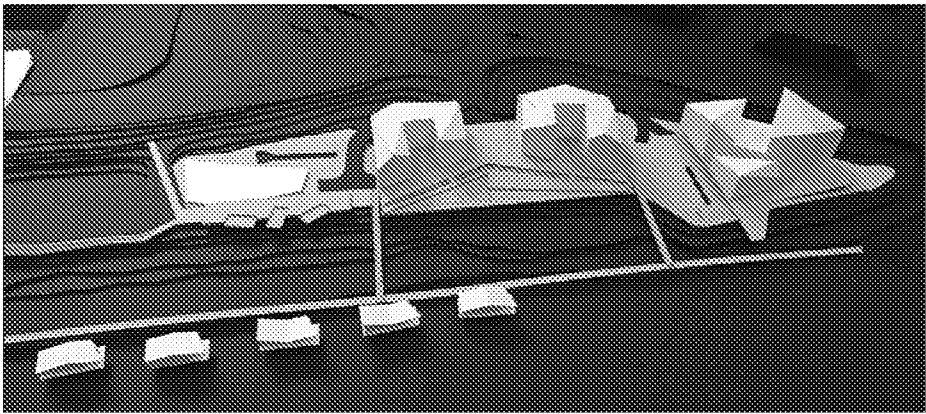
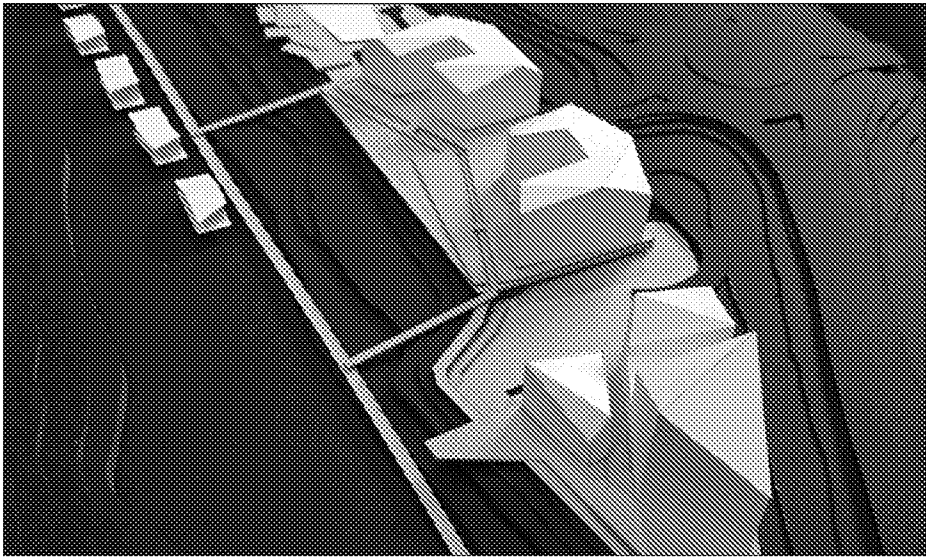
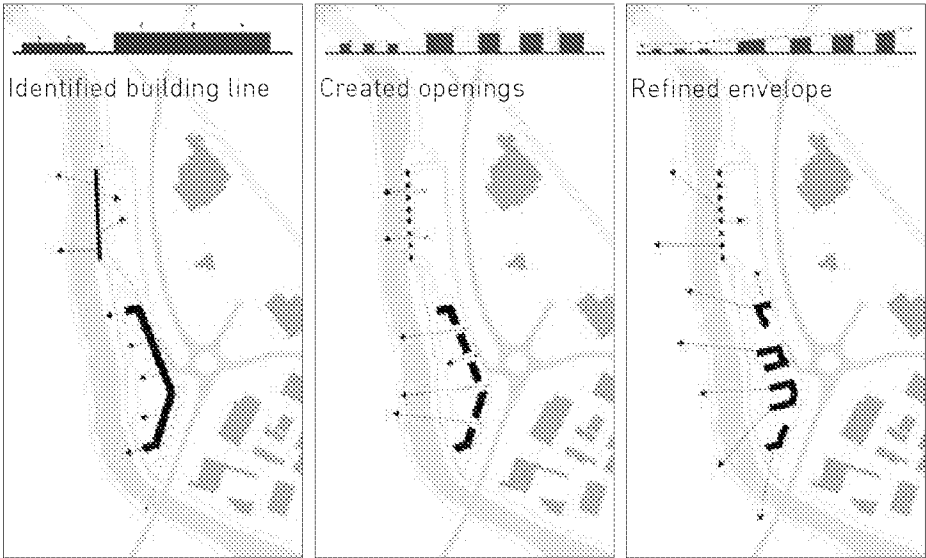


5.2. Development

The Open Courts proposal became the favoured option to explore further for the application site.

A higher number of residential units was able to be achieved on the site while also maintaining a minimum of 20m in-between each building. The courtyards aided in defining different landscape environments while also maximising the views out to the river and towards the South Downs National Park.

The adjacent drawings and model photographs were developed for a meeting with Arun District Council (ADC) exploring initial ideas of massing, form and landscape.



5.3. Consultation

Prior to obtaining pre-application advice, the masterplan has been through a process of design development through liaison with appointed consultants to ensure the proposal meets specific requirements and policies.

Initial proposals explored the idea of creating a brackish lagoon to improve the saltmarsh habitat along with floating holiday lets. However, this idea was dropped when a marine biologist identified that the salt marsh was establishing well and that the lagoon would not be effective. The concept of creating floating house boats in the river channel, away from the inter-tidal habitat, was explored but then rejected by the Environment Agency on the basis of vulnerability classification.

Consultation was undertaken in multiple stages, allowing us to discuss the site and proposals with a variety of different stakeholders in a range of settings.

We arranged meetings with local councillors and interest groups to understand their initial thoughts on the proposals for the site.

4th Jul 19 - Arun District Council Development Team Meeting

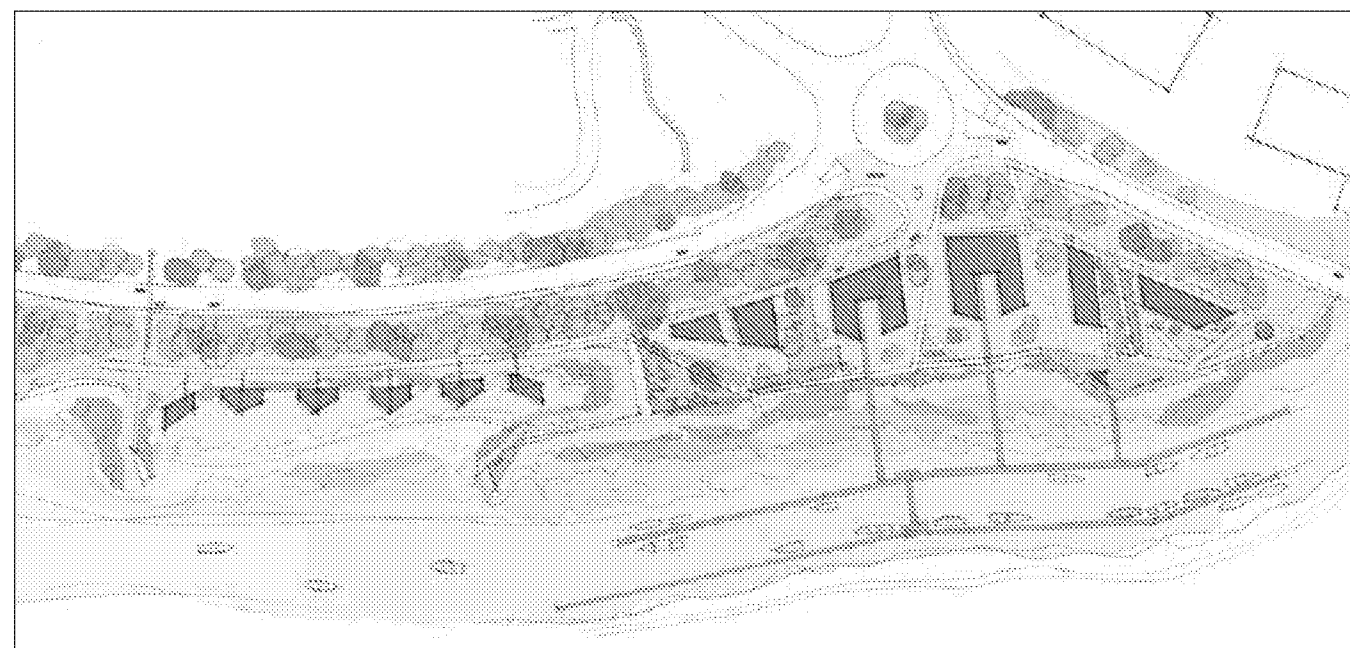
17th Sep 19 - Arun District Council Members

5th Nov 19 - North Littlehampton Steering Group

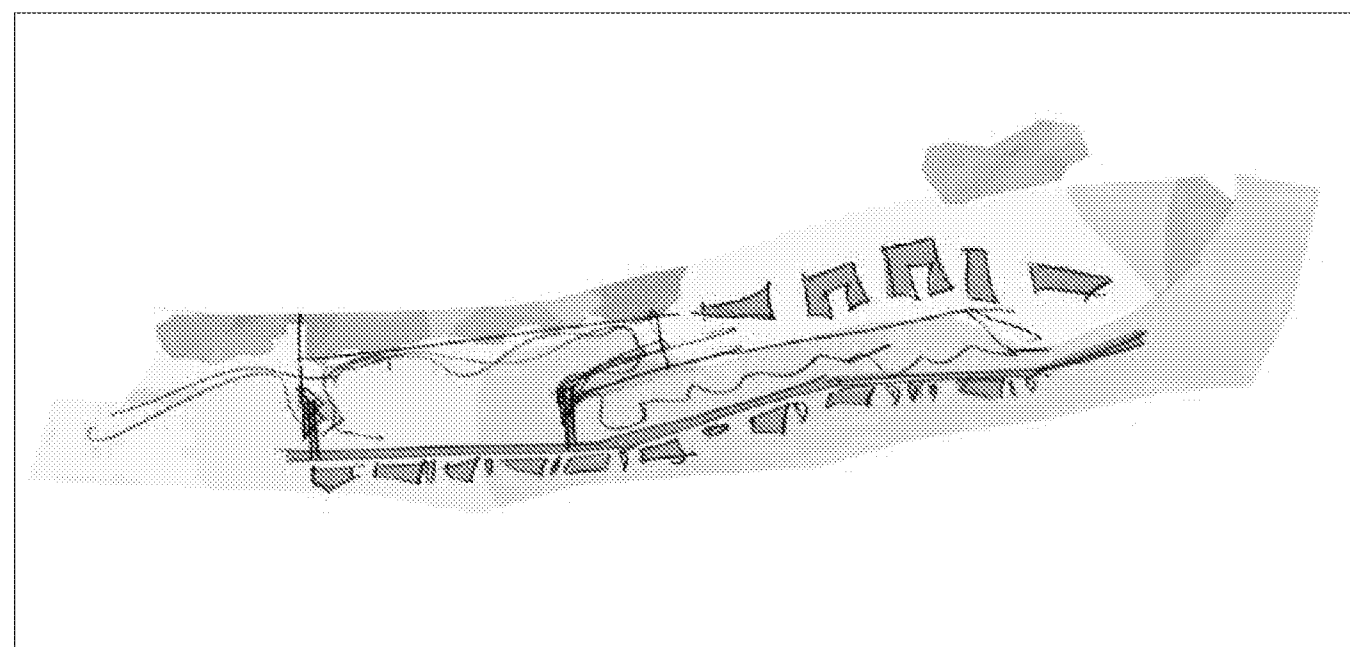
14th Nov 19 - Littlehampton Town Council

A public exhibition was held at the Arun Yacht Club in November 2019. It was then relocated to the offices for the Littlehampton Yacht Club, on Rope Walk, where the public were allowed to drop in between 09:00 and 17:00 on any weekday. The feedback received from the public were by-enlarge positive with many people expressing genuine excitement about the proposals.

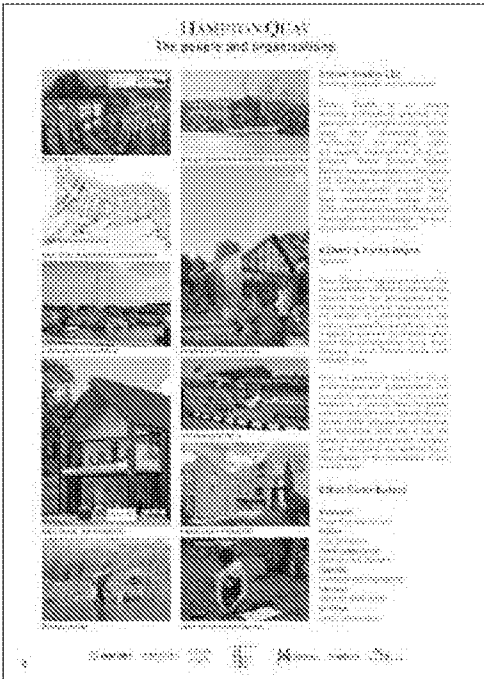
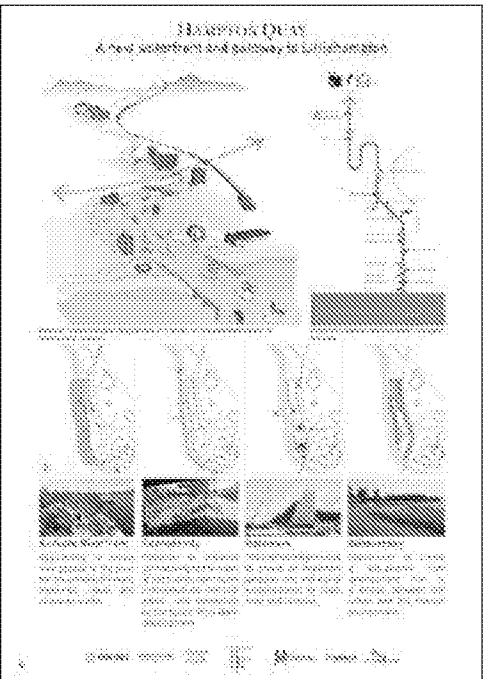
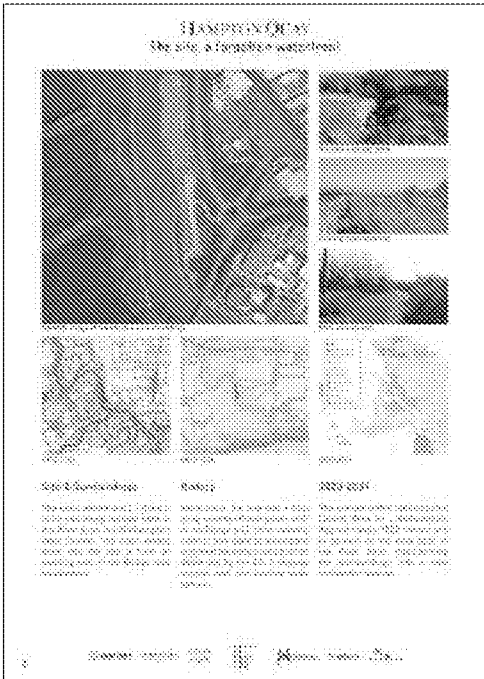
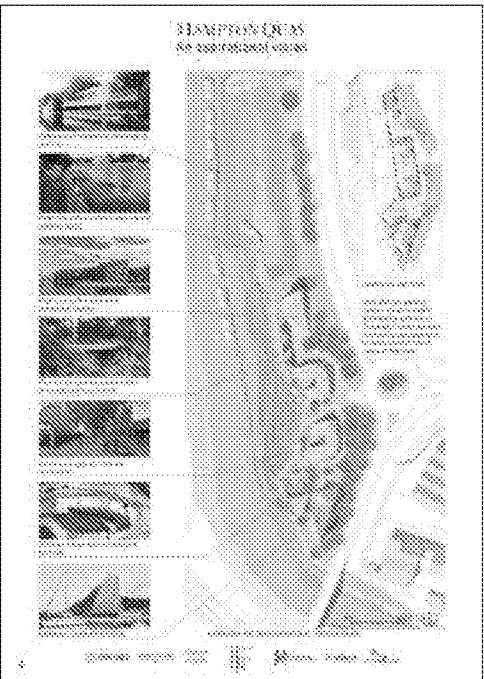
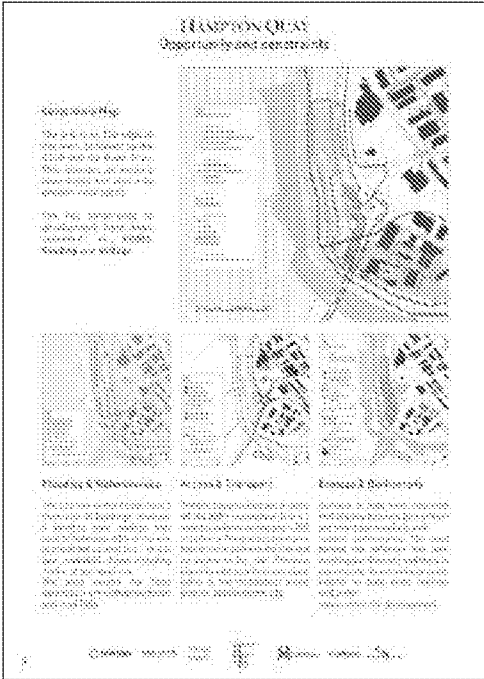
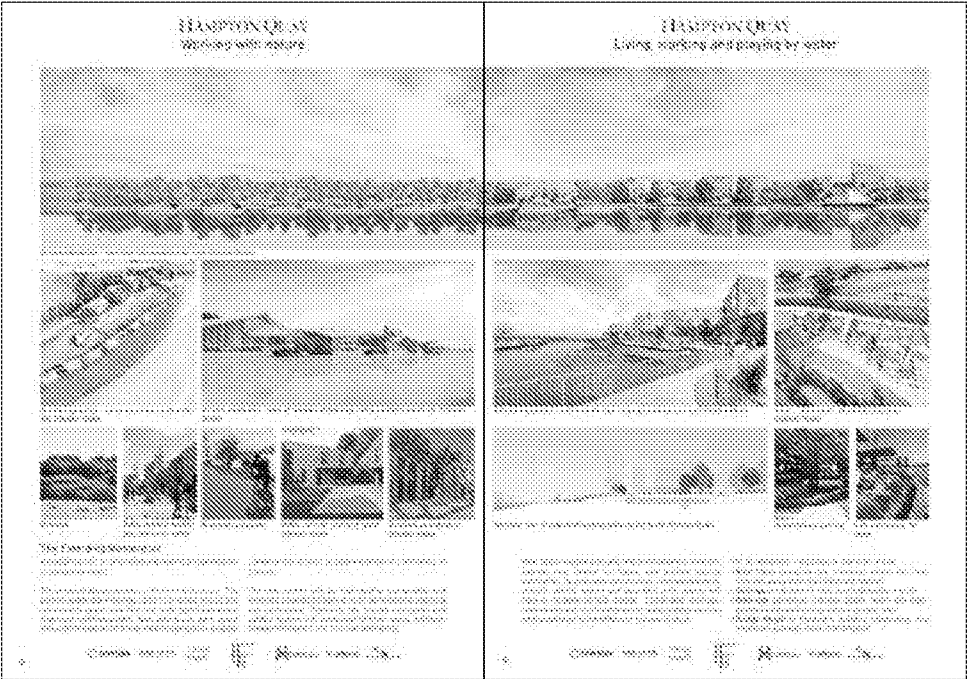
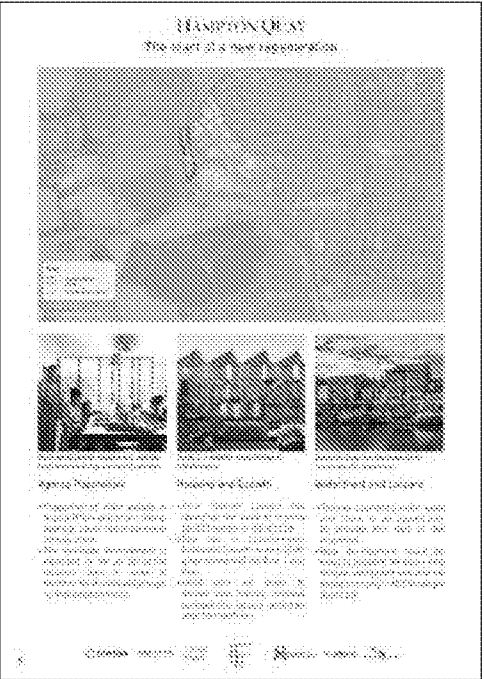
Please see Statement of Community Involvement for further information.



Drawing of an early proposal summer 2019



Developed sketch proposal summer 2019



Public consultation boards held in Nov 2019 and currently displayed at the public exhibition at the Littlehampton Yacht Club.

5.4. Pre-application summary

A pre-application was submitted to Arun District Council on the 4th October 2019 which provided the following information; pre-application design and access statement, biodiversity information survey and results, inter-tidal report and proposal review, land contamination report, archaeology and heritage statement, flood risk assessment, noise assessment, transport, tree survey and arboricultural information. A pre-application meeting was held on the 17th December 2019 with Raymond Cole and then the council's response was concluded in a report issued on the 13th March 2020.

The report concluded that;
"the principle of development for the proposed commercial and leisure uses is considered to be acceptable... Subject to the provision of additional information to demonstrate that there would be no adverse impact on the risk of flooding or on species and habitats, the principle of residential development could be considered to be acceptable too."

Areas which required addressing or further detail have been amended and these are outlined in the following points. For each point, a direct quote from the pre-application report has been included with our response below outlining how we have addressed these.

Item 1 – Housing Mix

- *"Section 6.3.6 of the pre application report proposes 25% to be 1 bedroom units, 40% to be 2 bedroom units and 35% to be 3+ bedrooms. No further breakdown has been provided to indicate the proposed tenure. Additional information will need to be included in the application to show how the proposal meets the recommendations".*
- Additional breakdown has been provided within the 'use and Amount' section of this DAS to show the amount of each unit type proposed.

Item 2 – Housing Mix

- *"The guidance states that for schemes greater than 51 units inclusive, 50% of units should be designed to M4(2) standard... plus two additional units should be design to M4(3) standard... for every 50 units proposed thereafter".*
- The intention of the scheme is to provide the allowance for a higher number of 1-2bed units but make them larger than minimum standards so they are more easily adapted to suit the required adaptable dwellings. Units are indicated on the ground floor of each building and could be used to provide the dedicated wheelchair accessible units. This is explained further in section 6.3.5 Multi-generational and Accessible Development.

Item 3 – Amenity Space Provision

- *"In accordance with paragraph 13.3.5 of the Arun Local Plan 2011-2031, the Council has published the Arun District Design Guide SPD Consultation Draft, Development proposals will be expected to have regard to this guidance including adequate provision of private external space".*
- Layout of the scheme is to be a reserved matter therefore further detail on this will be provided at the next stage. Although, the proposal provides the necessary 'Public Open and Play space' for the development. A private external space on the upper ground level has been provided at the base of each apartment building. Additionally, it is indicated that each unit will be provided with their own private external space in the form of a balcony on upper floors, or enclosed garden space for units on the ground floor. See section 6.17 and 6.18 for more detail on this.

Item 4 – Bin Storage

- *"...For flats communal/bulk bins can be used on the basis of 240litres of residual waste storage/bin per flat...The same amount of storage space/bins for recyclable materials is required to be provided... It is recommended that if any communal provision is located near or adjacent to the highway, it will be suitably enclosed and landscaped so that the maximum pulling distances and vehical access requirements are complied with".*

- Storage locations are shown on drawing 030-S3-P090. These show a storage area for each building on the lower ground level. Each of these are located and accessible within 30m of the highway. Further details will be provided at reserved matters stage.

Item 5 - Affordable Housing

- "In order to meet the policy requirements, the proposal will need to provide 35 affordable dwellings..."*
- The viability has been assessed and it demonstrates that the scheme is considered marginal given the complexity of addressing the flood risk and access improvements. However the applicant has proposed to provide a proportion of affordables that should still make the scheme viable. Whilst this may not meet the target provision, the scheme will significantly contribute to the local housing demand and increase the provision of affordables in the area. Please refer to viability assessment for further details.

Item 6 - Highways Transport and parking

- "The submitted pre-application contains inconsistencies in both the stated number of proposed EV points and spaces for visitor..... The forthcoming application will need to be consistent in the stated figures and a robust case will need to be made for a departure from the parking Standards SPD."

- Please see section 6.8 of the DAS which has addressed inconsistencies and provided a summary of the proposed car parking and cycle parking. Please also see the Transport Assessment and Travel Plan which have been submitted alongside this application.

Item 7 - Sustainability

- "An energy statement demonstrating...would normally be expected to be included as part of a planning application"
- An energy and sustainability statement has been provided and accompanies this application.

Item 8 - Flooding

- "It is not possible, at this stage, to state whether the proposal is likely to be acceptable or unacceptable due to the risk of flooding from tidal and/or fluvial sources".
- Further consultation has been sought from the Environment Agency and the Council's Drainage Engineer. The EA has provided feedback and has deemed the proposal acceptable. Please see the Flood Risk Assessment and SUDs statement for further information along with the Council and Environment Agency feedback.

Item 9 - Protected Trees

- (i) "In the event that a RPA (Root Protection Area) of any tree which is proposed for retention overlaps the development then BS5837:2012 requires that the Detailed Planning Application is accompanied by an Arboricultural Method Statement (AMS) and also most importantly a Tree Protection Plan - to both describe and illustrate the mitigation measures which are to be employed to ensure that the trees survive without detriment to their vigour and vitality and are given adequate protection both above and below ground."*
- (ii) "Mitigation for the proposed removal of moderate value trees should be ambitious and involve the use of native trees with long-term landscape value wherever appropriate and submitted as part of a detailed landscape scheme."*
- The proposed landscaping has been carefully considered to relate to the surrounding context. The landscape is to be a reserved matter however the landscaping strategy and the DAS demonstrates how the proposal could be designed to meet the relevant green infrastructure policy. A tree survey, tree protection plan and arboricultural impact assessment has been provided alongside this application. It is envisaged that the proposal will incorporate a mix of aquatic and non-aquatic native species. A tree replacement ratio of 2:1 has also been propose to compensate for removal of some trees on site.

Item 10 - Open Space Provision

- *"Confirmation of the total area of public open space proposed with this development will be required in a forthcoming application.."*
"It would be beneficial to see connecting cycle routes and pathways as path of the development, both for movement within the site and linking to the network beyond."
"Drainage features within the development and how they work with location... will need to be considered.."
- The application encompasses the required total of public open space. This has been calculated and a summary has been provided on section 6.2 within this DAS and on the drawing 030-S3-P041. Connecting cycle routes and pathways have been carefully considered to connect the proposal to existing infrastructure within Littlehampton and provide access from the site into the town centre and to important public transport connections. The drainage features within the landscape have been carefully considered to ensure they will always function regardless of the tide level. Further details of this are within the Flood Risk Assessment and SUDs Statement. Additional information on the future management responsibility as been provided within section 6.2 of this DAS.

Item 11 - Noise pollution

- The noise assessment report satisfies the relevant policy for submission. No further comments are required.

Item 12 - Contamination

- The land contamination assessment satisfies the relevant policy. No further comments are required.

Item 13 - Infrastructure Provision

- CIL will be determined through reserved matters stage

Item 14 - Biodiversity / Protected species / SSSI / SNCI

- *"Insufficient information has been submitted with this pre-application enquiry to determine whether the proposed development would be acceptable in terms of its effect on biodiversity. Further requirements are identified in the section that follows. Overall, the proposal should provide net gains for biodiversity".*
- The submission includes an Ecological Impact Assessment (EcIA), Biodiversity Checklist and Inter-tidal report which provides information on the proposal and the impact on surrounding sites. The proposal has been developed in close consultation with the EA including their ecology team. The

scheme has incorporated biodiversity within the proposal and provides a net gain of habitat where possible. It also aims to incorporate the existing areas of inter-tidal habitat and aims to avoid impact on these areas within the site. This is described further in the EcIA and Inter-tidal report. Additional informal advice about the intertidal areas has been sought from Natural England and has been summarised in the advice note submitted alongside this application. This is also summarised within the DAS in section 6.11. The landscape is to be a reserved matter, however, the EcIA and the landscaping strategy indicate how the proposal could meet the necessary net gain in biodiversity to meet policy ENV DM3.

Item 15 - Landscape

- *"A landscape and visual impact assessment (LVIA) needs to be undertaken and a landscape strategy prepared and submitted to provide details of the proposed landscaping, including proposals for long-term maintenance and management..".*
- An LVIA has been prepared and submitted alongside this proposal. The document assesses the surrounding landscape and visual receptors and the potential significance of impact the proposal may or may not have along with relevant mitigation measures. The landscape design is to be a reserved matter, however

the landscaping strategy and items the DAS explain how the proposal could be designed. Details on the future maintenance and management of the landscape is provided within the DAS section 6.2.

Item 16- Archaeology

- A heritage statement and HER search has been provided alongside this application submission.

Item 17- Tourism

- *"The scheme has the potential to become a popular attraction in Littlehampton for both residents and visitors.."*
- A Vision and Impact Statement has been provided alongside this application to describe how the proposal could contribute to and enhance the existing economy within Littlehampton.

Item 18 - Environmental Health

- The proposal provides further detail on the proposed external lighting scheme and provision for EV charging points. Noise, air quality and land contamination assessments have been provided and accompany this submission to explain how the proposal responds to each. Further detail on the construction management plan and hours of operation will be provided at reserved matters stage.



6. Design Proposal

6.1. Lifespan & resources

6.1.1. Virtuous Development

There are many compound issues facing society and development, such as the impacts of climate change, flood-risk, poor health or an aging population. Good architecture and planning cannot solve these issues but may help to lessen these issues and create better places to live and work. There a number of interrelated measures that are seen as important to achieve more virtuous development:

- Sustainable, climate adaptive buildings and landscapes that reduce the demand on the environment and cope with the impacts of the changing in climate
- Physically and technologically adapted buildings that improve the lives of all occupants and users
- A mix of generations within the development encourages interaction between all ages without clear designation of housing types.
- Planning for active lifestyles, with access to public space, nature and the outdoors and diminishes reliance on the car.
- Social integration through co-housing and co-working to combat the sense of isolation and support the known health and well-being benefits of regular personal interaction.

6.1.2. Concept

The concept is to create a high quality mixed-use development that articulates and opens up the river waterfront, creating a gateway into the town and an enriching place to live.

The site lies on the edge of the existing town on the border between the built and the 'natural' environment. Therefore the plan is conceived as a marker and transition between the built and natural environment. The buildings are taller in the south as they mark the entrance to the site and lower in the north as the site transitions to the natural environment.



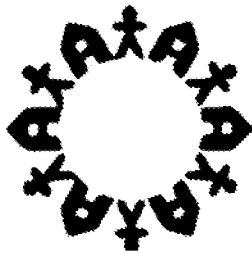
Sustainable / climate adaptive buildings



Multi-generational housing



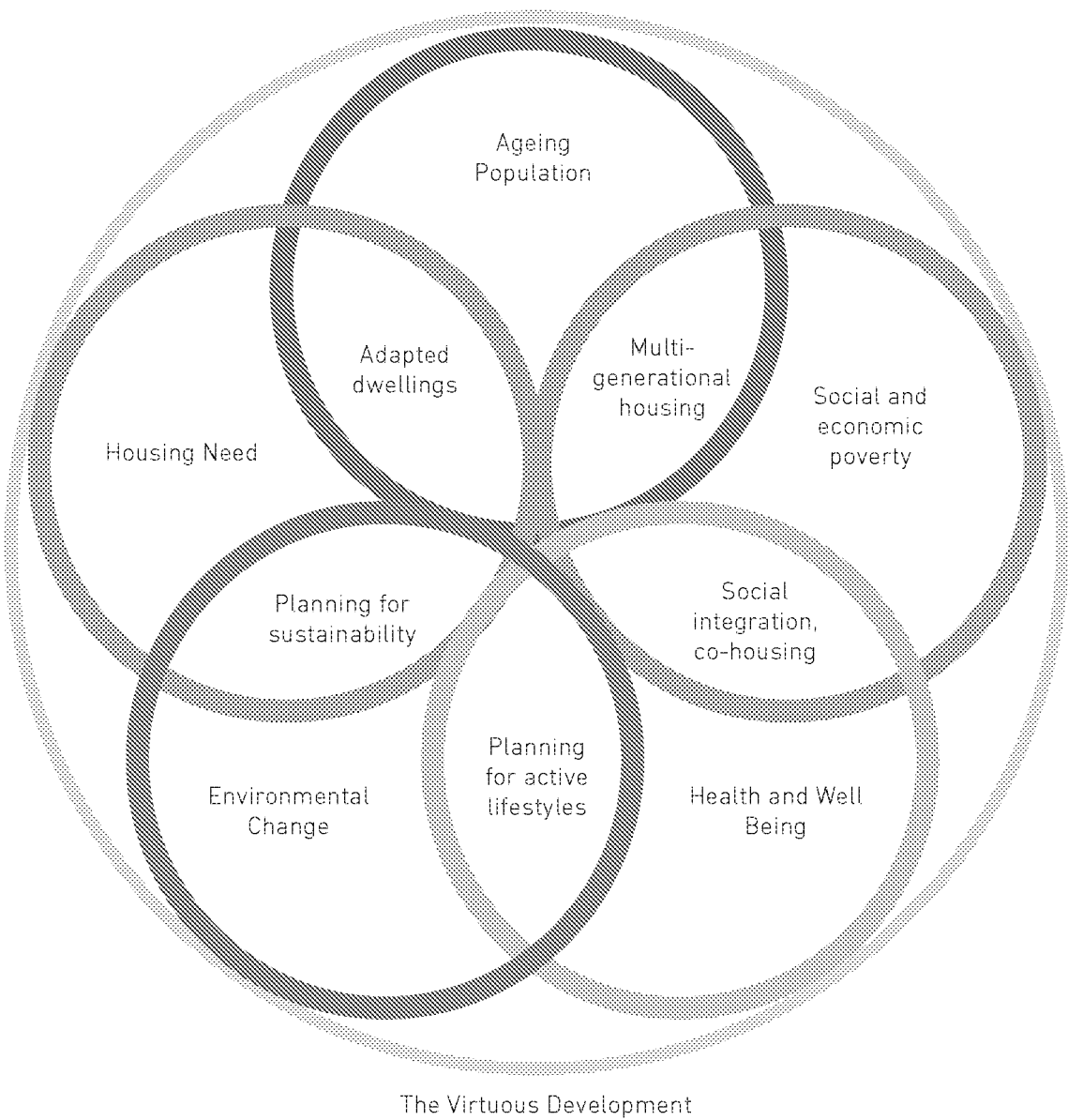
Planning for active lifestyles



Social integration, co-housing



Adapted dwellings



6.2. The masterplan

A good masterplan seeks to stitch into the surrounding setting and to enhance this setting through high quality place making. This requires creating:

- character for a sense of place and history,
- quality that engenders a sense of wellbeing
- good public realm with accessible and generous amenity
- diversity with variety and mixed uses
- legibility with a clear hierarchy and routeways

The masterplan offers an integrated solution to delivering new homes at the same time as managing flood-risk, providing space for water, ecology and reducing energy demand.

Key components of this plan are:

- Integrated masterplanning
- Waterside living
- Gateway to the town by river and road
- Multi-generational development
- High quality sustainable buildings
- A blend between urban and natural landscape and habitats
- Biodiversity enhancement
- Multi-functional spaces



6.3. Use & amount

6.3.1. Use

The proposal is a residential led mixed-use development, incorporating some commercial/leisure space, a restaurant and mooring facilities.

The intention is to cater for all ages and to encourage a multi-generational occupancy of the development. Stolon Studio strongly believe in the social and economic benefits of creating multi-generational communities and in aspects of co-housing. This is described in more detail below.

The intention is that the development would have elements of co-housing to encourage greater social cohesion between residents. Features would include shared courtyards and garden spaces, shared kitchen and restaurant, and a gymnasium.

New leisure moorings are proposed along the river accessed via the riverside park.

New play areas, park space, biodiversity enhancement and protection measures to existing habitats will be created.

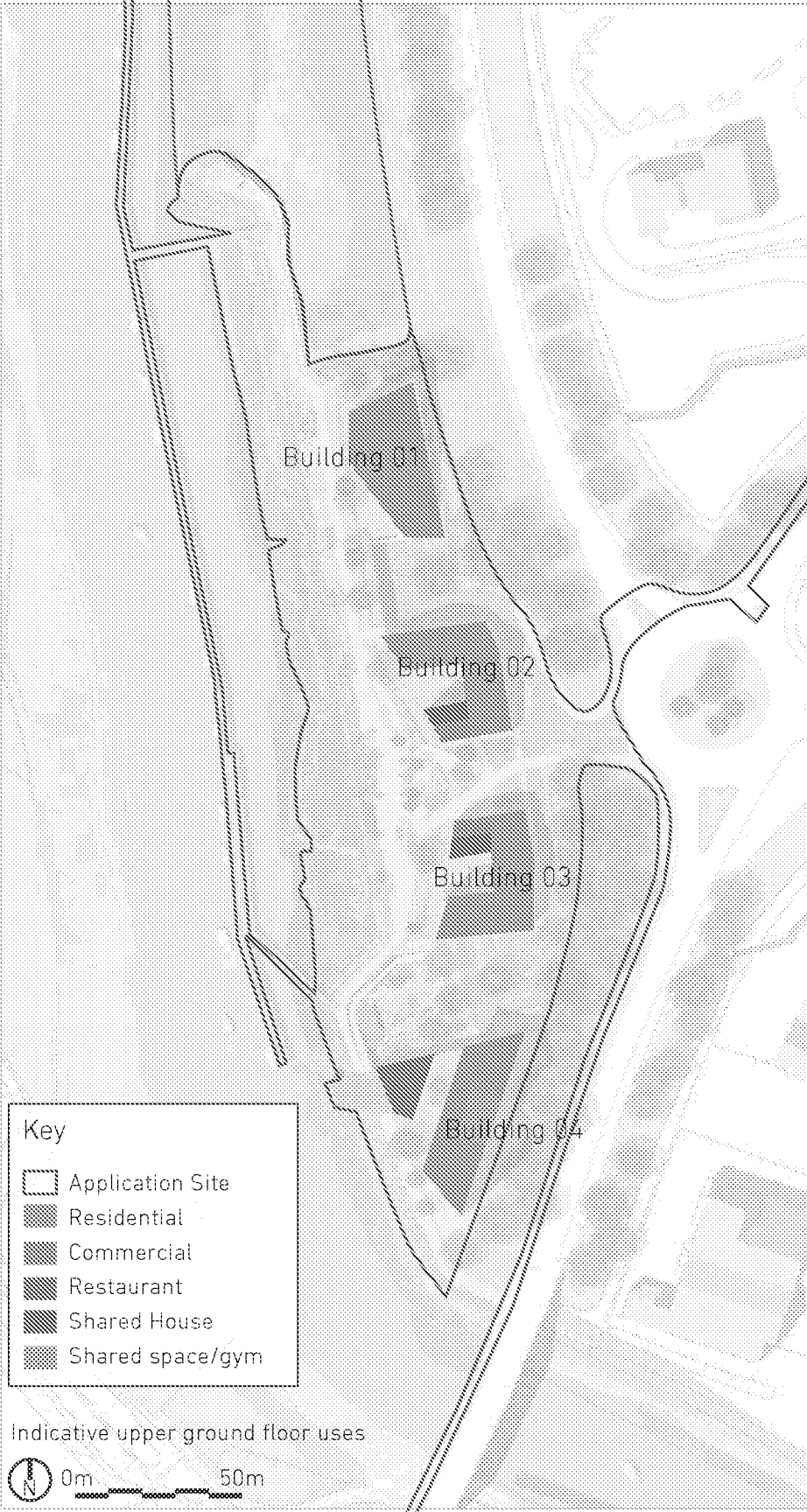
6.3.2. Amount

The proposal involves the creation of four residential buildings, rising from 2/3 storeys in the north to a landmark building in the south up to 8 storeys in height. In total, these buildings will provide up to105 apartments, with space on the ground floor for a 220 sqm restaurant and bar, and a 110sqm retail unit. It is also indicated that there could be provision for a gymnasium and 'shared houses' for each apartment building.

420m of pontoons are proposed, running from south to north. These are intended to provide space for 32 leisure moorings.

Residential Unit Type	Building 01	Building 02	Building 03	Building 04	Total
3B/5P	14	7	12	6	39
2B/4P		8	1	10	17
2B/3P		9	7	5	23
1B/2P	6	1	10	9	26
Total	20	25	30	30	105

Non-resi Unit Type	Sqm
Restaurant	170
Ancillary	50
Commercial	110
Total	330



6.3.3. Mix - Policy

ADC Local Plan, 12.2.2 indicates that the mix should be determined based on the Strategic Housing Market Assessment (SHMA), and any other relevant information. *'to make sure the proposed scheme meets the needs of potential residents'*. It also makes reference to the proportion of older residents in the district. SHMA (2012) indicated a requirement that ... *'46% need to be three bedroom'*. The Littlehampton Neighbour Plan indicates that if a site lies beyond 400m of local centre then *'greater than 75% of the units should be 3+ bed units'*. The Littlehampton Neighbour Plan also identifies that 70-80 % of affordable homes are to be provided as 1-2 beds. These two policies would result in the development having up to 96% of the 1-2 beds as affordables and only 8% of the 3+ beds as affordables. This highlights the need for a more site specific approach such that there is a more generous number of smaller properties and a more balanced tenure mix.

6.3.4. An aging population

The office of National Statistics indicates that by 2044 the proportion of the population aged over 65 years will rise from 17-24%. It shows that the no. of children is likely to remain consistent so it stands to reason that the proportion of older people will rise.

ADCLP 3.18 Arun has one of the UK's highest populations of elderly people, with 27% of residents aged 65 and over, compared to 17% nationally.

In Arun the proportion of older people is already 10% higher than the national average and therefore this number could rise in excess of 35%. Looking to the future a working mix has been established as 15% children, 45-50% working age, 35-40% elderly.

6.3.5. Multi-generational & Accessible Development

Generational mix is rapidly becoming a concern in communities. Too frequently it is not considered and developments become popular with specific age groups. This is particularly true of retirees and the number of dedicated retirement villages is rising. The proposal for this site is to make it attractive and accessible for people of all generations, particularly families and elderly people. With access and views to the river the site is likely to be an appealing place to live. The proposal is to create shared garden spaces and other facilities such as a cafe/restaurant, gymnasium and shared rooms that appeal to people who stay at home.

The site has also been carefully laid out to provide inclusive access for all. Furthermore it is important that many of the units are larger than the NPPF housing standards such that they can be adapted for people with mobility difficulties creating an M4(2) adaptable or M4(3) wheelchair accessible units. It is also important to provide more space for storage and welfare or people with young families.

For instance a 1 bed / 2 person flat should be 65 sqm (30% bigger) than the minimum 50 sqm. Therefore, the intention is to provide a higher number of 1-2 bed units but make them larger than minimum standards.

6.3.6. Mix - Proposed

Based on the policy, demographic change and location the appropriate mix has been assessed as follows:

- 25% are 1 bed units,
- 38% 2 bed and
- 37% 3+ bed

It is felt that this will provide a good multi-generational mix and with sufficient space to support all ages and allow for adaptation of homes.



6.4. Built form

The new development is set behind existing, enhanced, flood defences. The buildings are raised above undercroft car parking and linked by a new landscaped deck that meets the top of the flood defences.

A landmark building set on the edge of the A259 would mark the gateway into Littlehampton. From this point the buildings descend in scale towards the north and forming the edge of the town.

Four buildings are set around shared communal spaces that open out onto the river but are set back from the public realm to provide privacy.



Lesiure Moorings
Water level

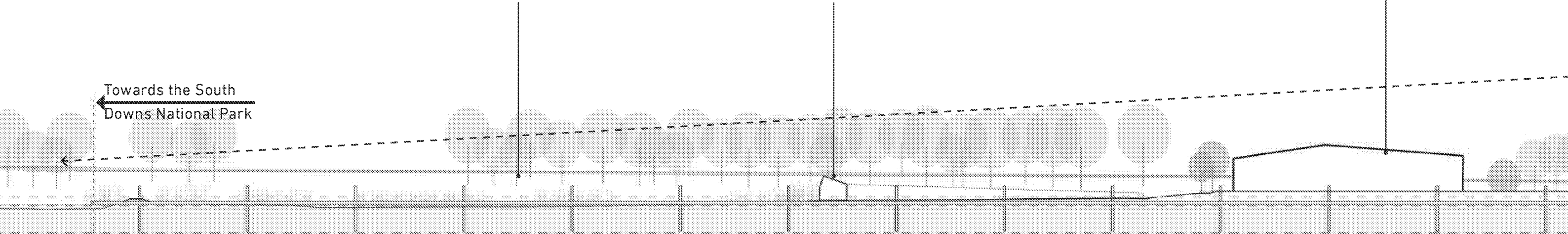
The leisure moorings will vary in elevation dependent on the tide. Leisure craft will not be present during the winter months.

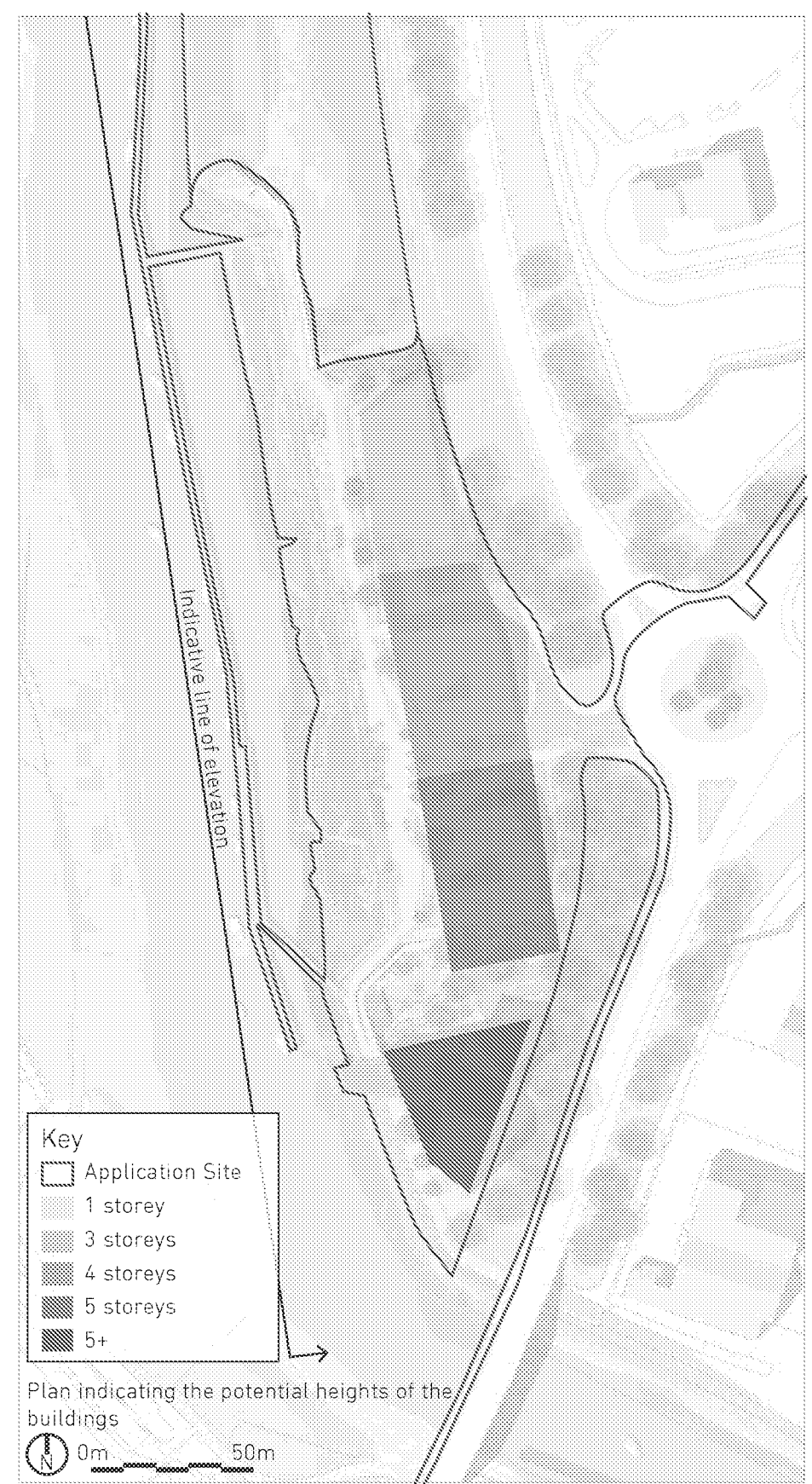
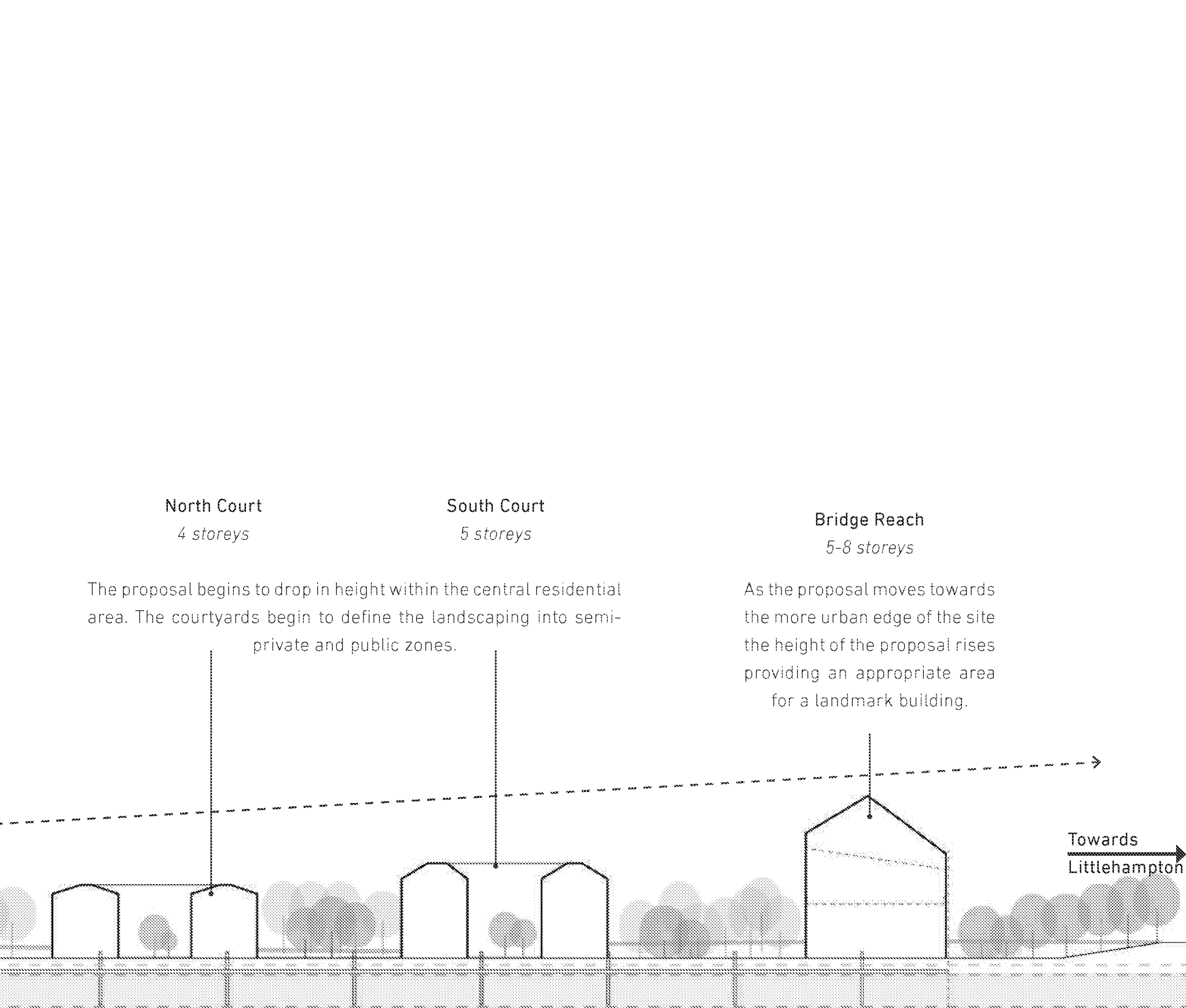
Bird hide
1 storeys

A low lying, lightweight structure occupies the spit of land facing onto the saltmarsh providing an area for bird watching.

The Saltings
3 storeys

The final residential building drops to 3 storeys and is at it's lowest as it faces onto the saltmarsh.





6.5. Layout, flood-risk

The site is protected by flood-defences. However, where ever there are flood defences there is always a residual risk in the event the flood defences are breached.

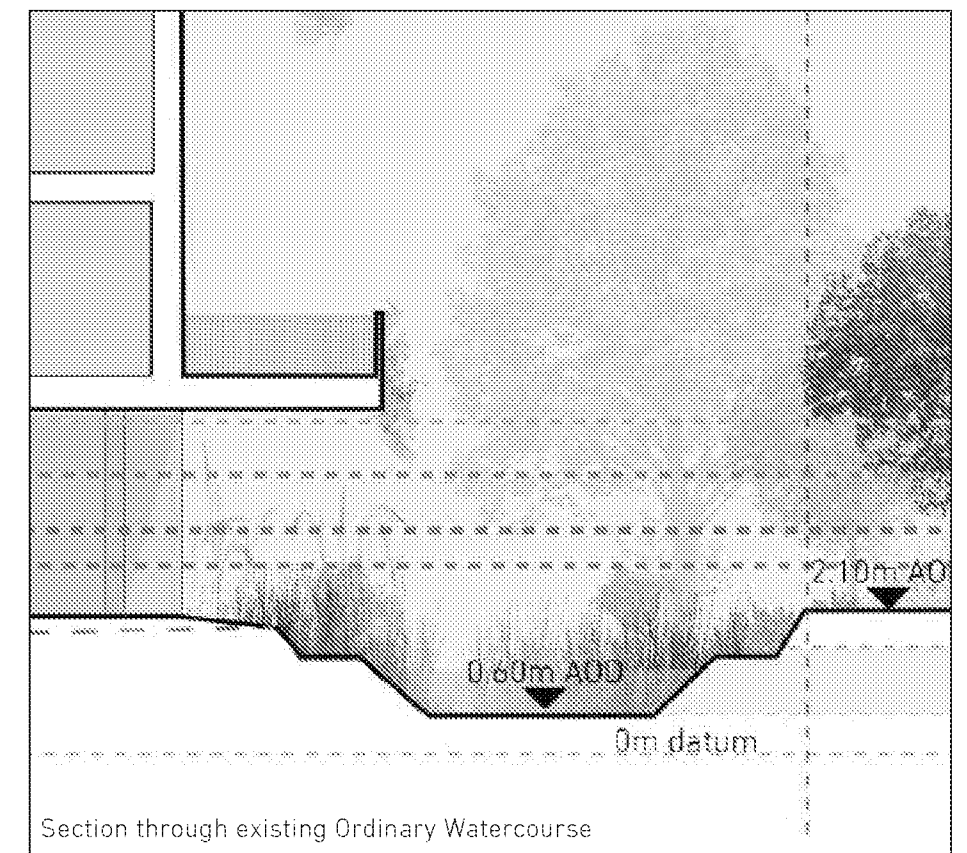
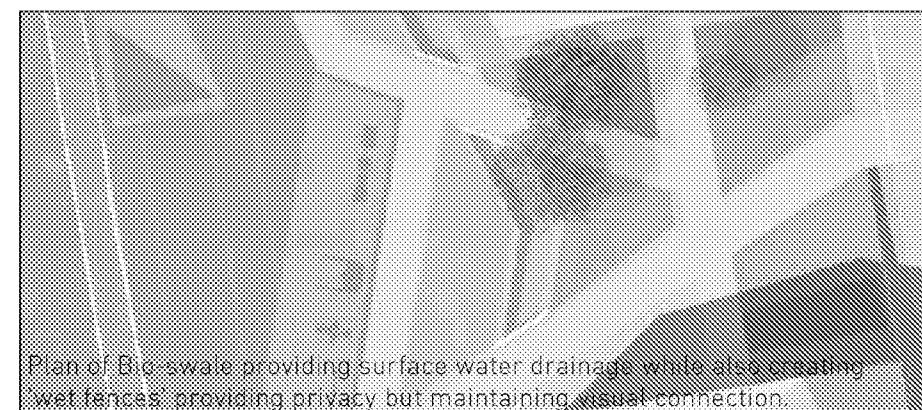
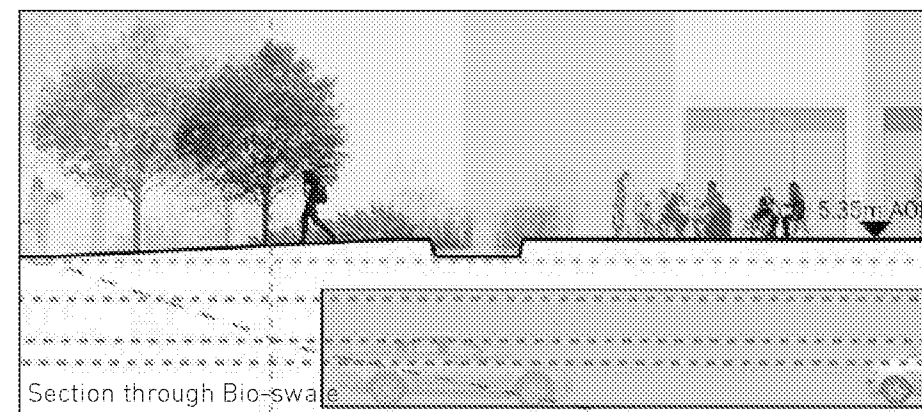
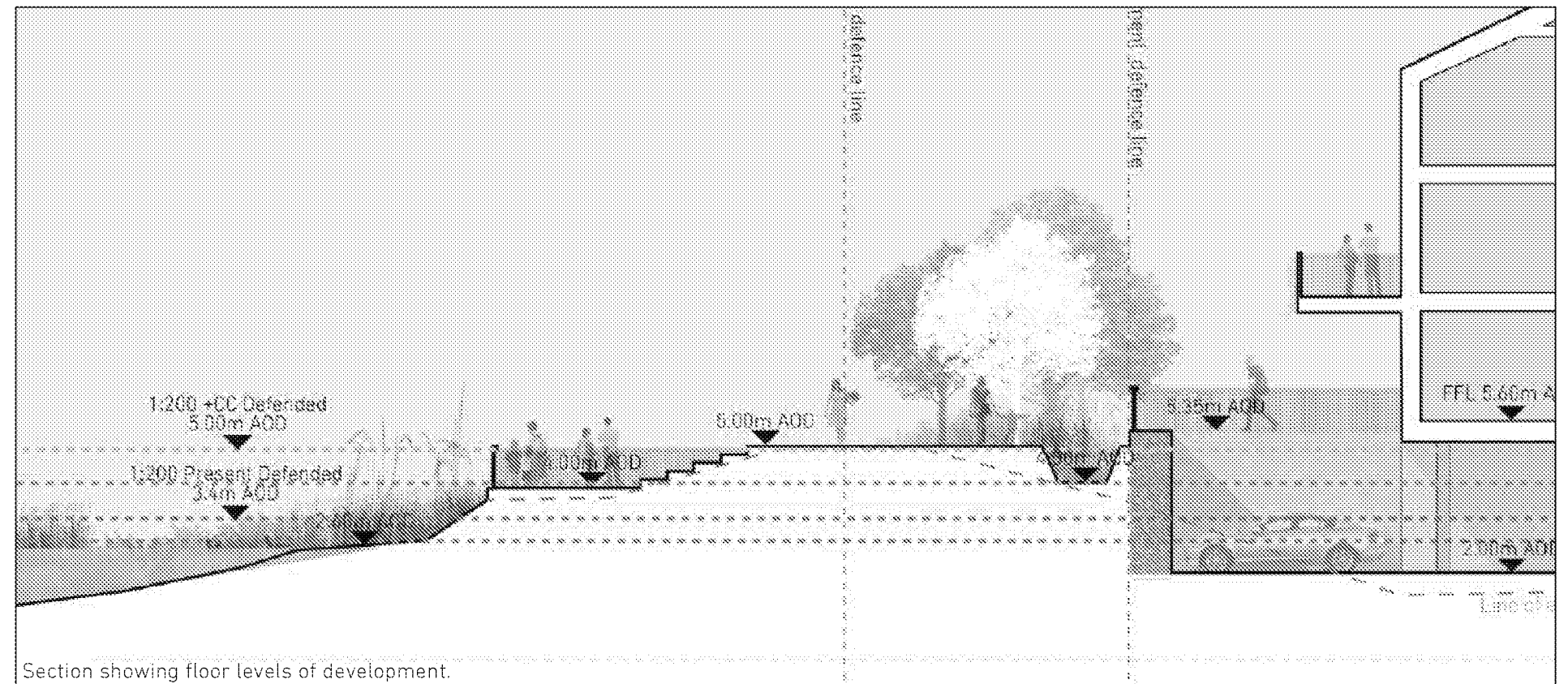
6.5.1. Finished floor levels

To ensure that residents are safe behind the flood defences all of the habitable rooms have been elevated above the 1 in 200 and 1 in 1000 year predicted flood level and allowing for climate change. The current 1 in 200 flood level is 3.40m AOD. The predicted 1 in 200 flood level is 5.00m AOD. The proposed finish floor level is 5.6m AOD, almost 0.6m higher.

The top of the flood defence bank is apx 4.85m AOD and the road level ranges from 6.00m to 7.50m AOD. The existing ground level behind the defences is approximately 1.80m AOD. This means it is effectively a bowl. This will be used to hide the car parking below the buildings. It is envisaged that a concrete slab will be formed across the top of the parking over which a new landscaped river terrace can be created. This will provide access to the ground floor of each apartment building and provide a safe access/egress route.

6.5.2. Flood defences

It is envisaged that a secondary line of structure will be created behind the existing line of flood defences. This will either be sheet piling or contiguous piling and backfilled to create a level deck.



6.5.3. Sustainable drainage

New sustainable site drainage will be created with permeable surfaces, and wide planted swales over the parking level and alongside the access roads. The swales will discharge into the drainage ditch system via the play park area. The play park area is designed to attenuate and slow the flows helping to emulate greenfield run-off rates.

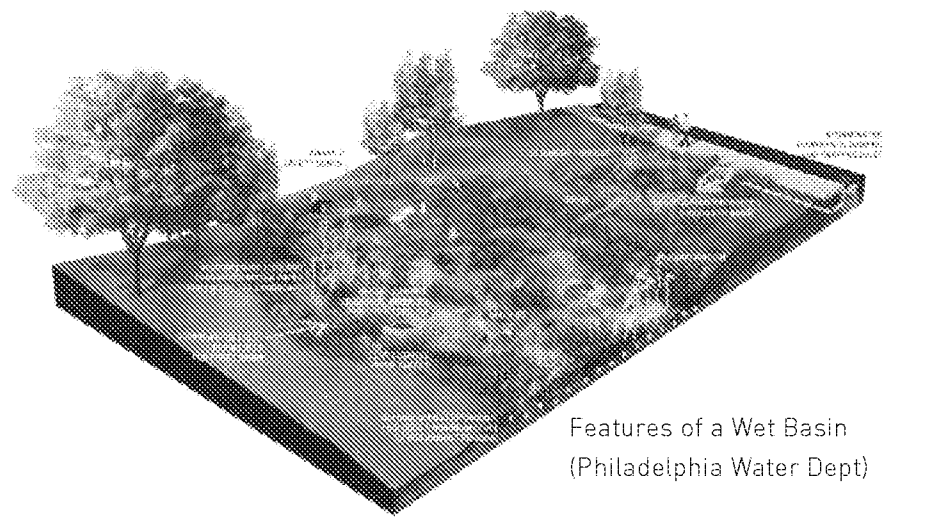
There are two drainage ditches within the site boundary. One of these has a main river designation. The ditch running north to south will be re-routed into a culvert running between The Saltings building and North Court. Elsewhere the banks of the ditches are to be widened to create a 'two-stage ditch' with a constructed flood-plain bench. This will create space for water and ecology and may reduce nitrate run-off.

6.5.4. Space for water

With increased precipitation there is the likelihood that the ditches may carry more run off from the adjacent land, including the land

to the east. Whilst the existing culverts below the A259 may limit flows through to the site additional capacity will be created within the ditch system through widening the upper section of the channels and culverts appropriately sized to cater for future flows. It is hoped to create a small balancing pond on the edge of the site where the culvert emerges from below the A259.

In the event that water exceeds the ditch system it is allowed to flow firstly over the play park area and then into the car parking areas.



Features of a Wet Basin
(Philadelphia Water Dept)



1. A shallow swale along the edge of the riverside walk will collect rainwater run off and discharge into the ditch system.
example: Melbourne, Australia



2. Attenuation and filtration pond to increase space for water and filter run-off.
example: Grange Farm Swale and Balancing Pond, UK



3. The new play area will be designed to tolerate inundation, providing space for water in the event that the ditch overflows.
example: Japan



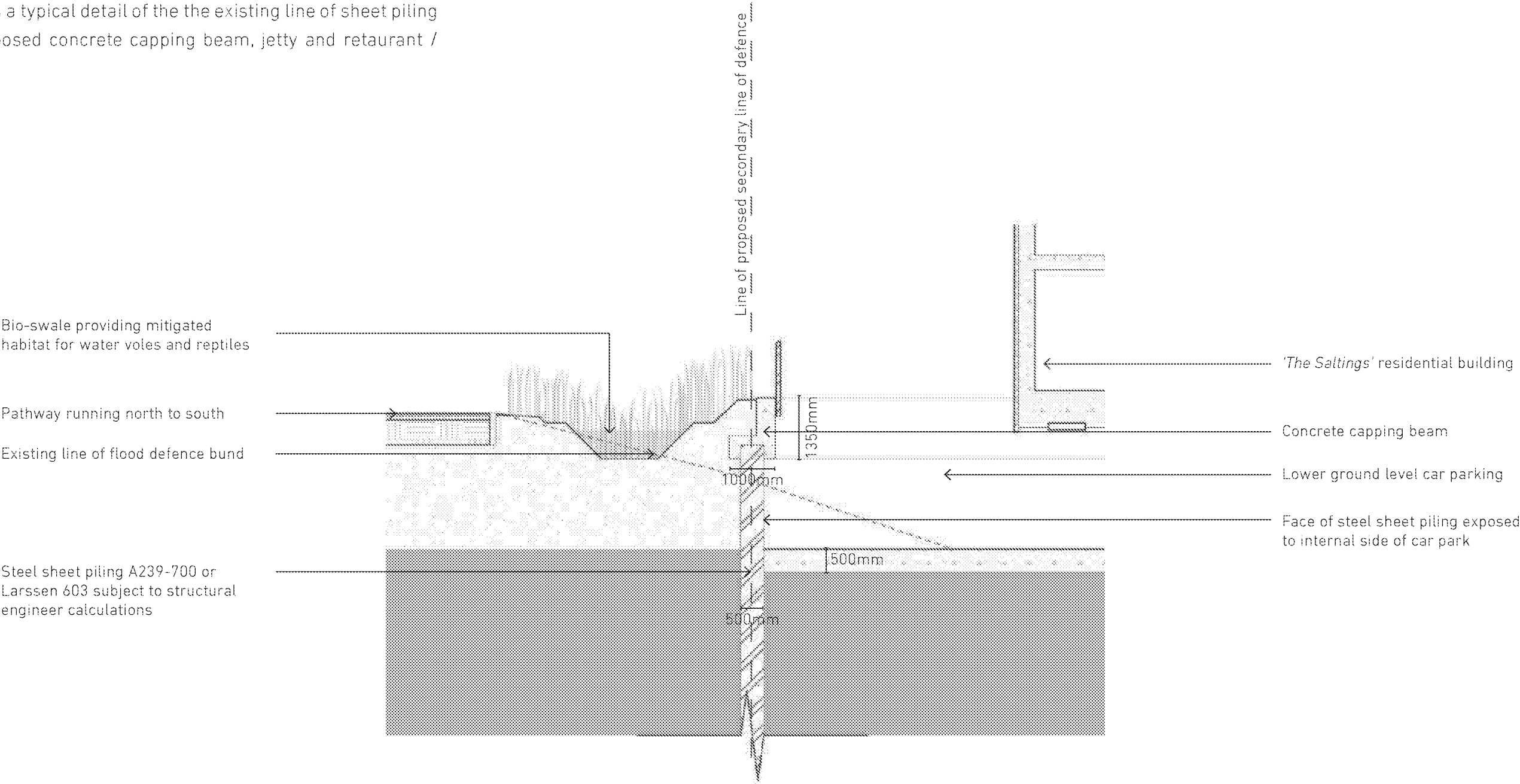
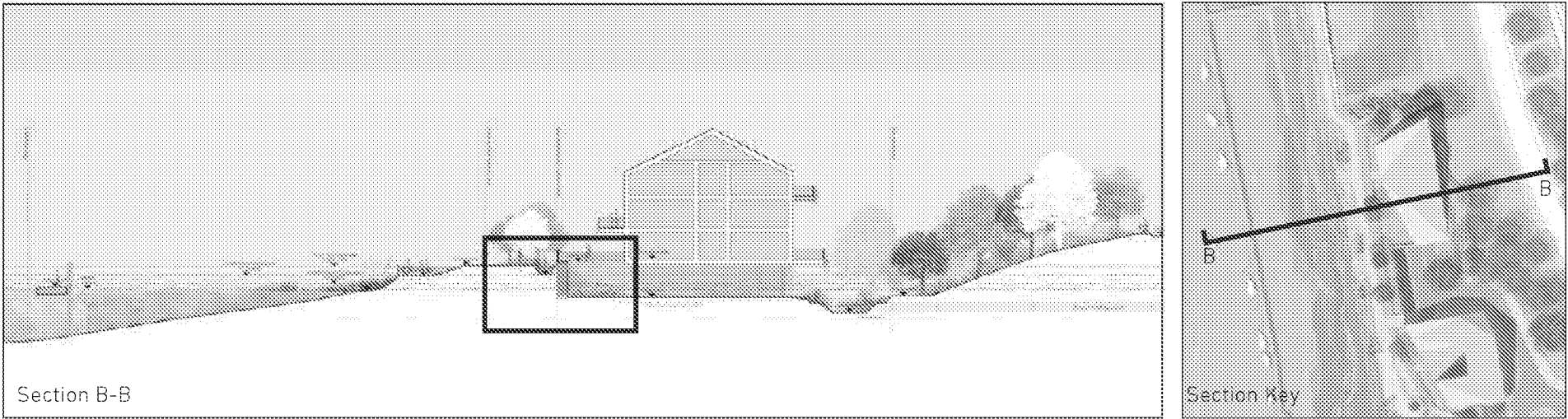
4. The banks of the ditch will be widened to create more space for water.
example: Ohio, USA

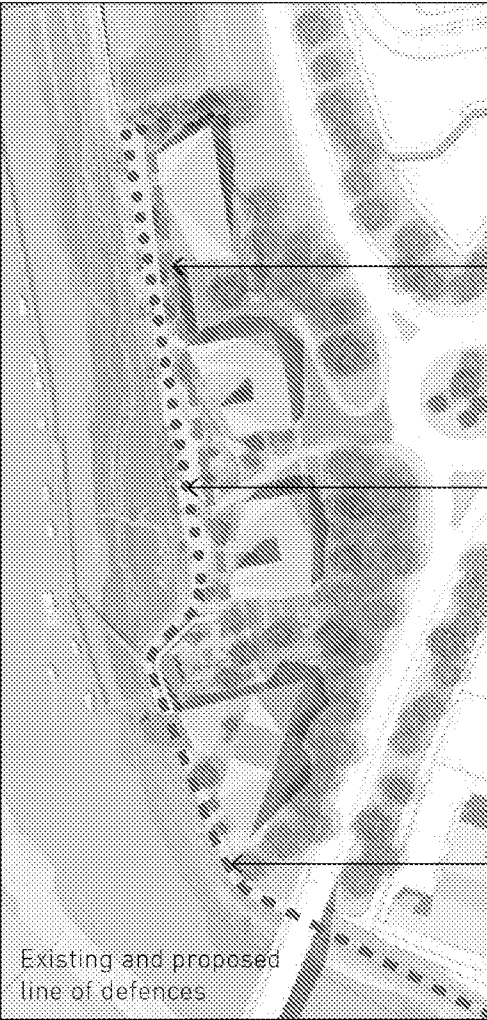


6.6. Flood defence typical details

Section A-A
The section below is taken through 'The Saltings' character area. It shows a typical detail of the proposed secondary line of defences which also forms the retaining wall to the lower ground car parking.

Section E-E
The section opposite is taken through 'Bridge Reach' character area. It shows a typical detail of the the existing line of sheet piling with the proposed concrete capping beam, jetty and retaaurant / cafe.



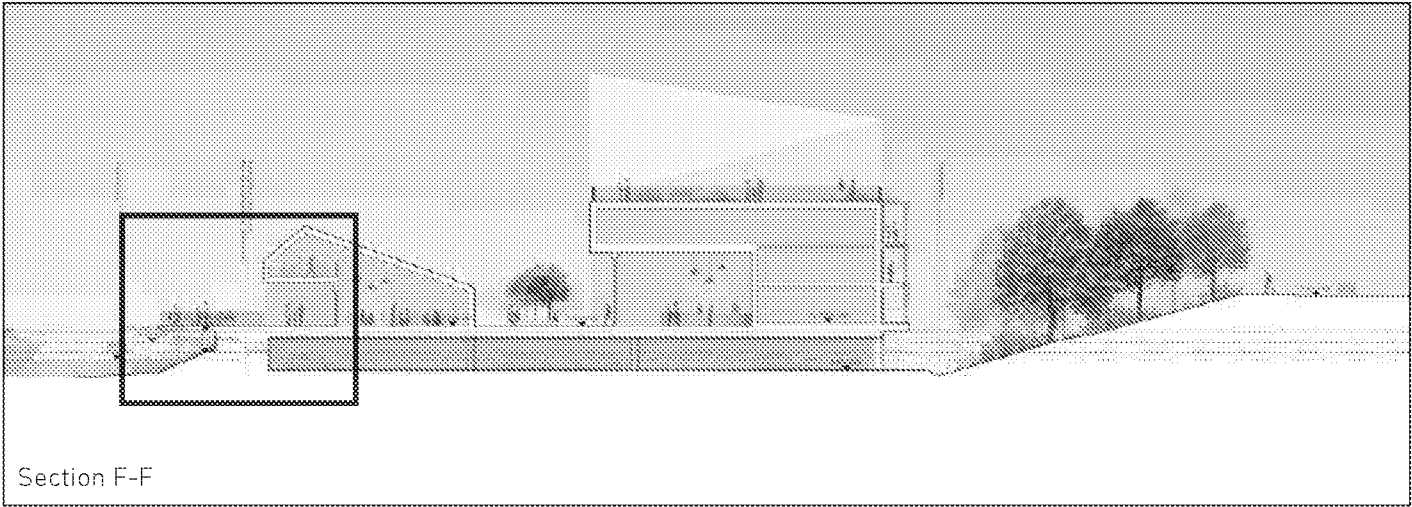


Proposed second line of steel sheet piling defences

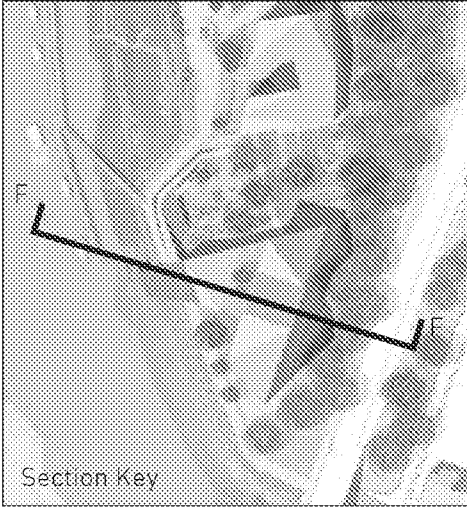
Existing centre line of flood defence bund

Existing line of steel sheet piling

Existing and proposed line of defences



Section F-F



Section Key

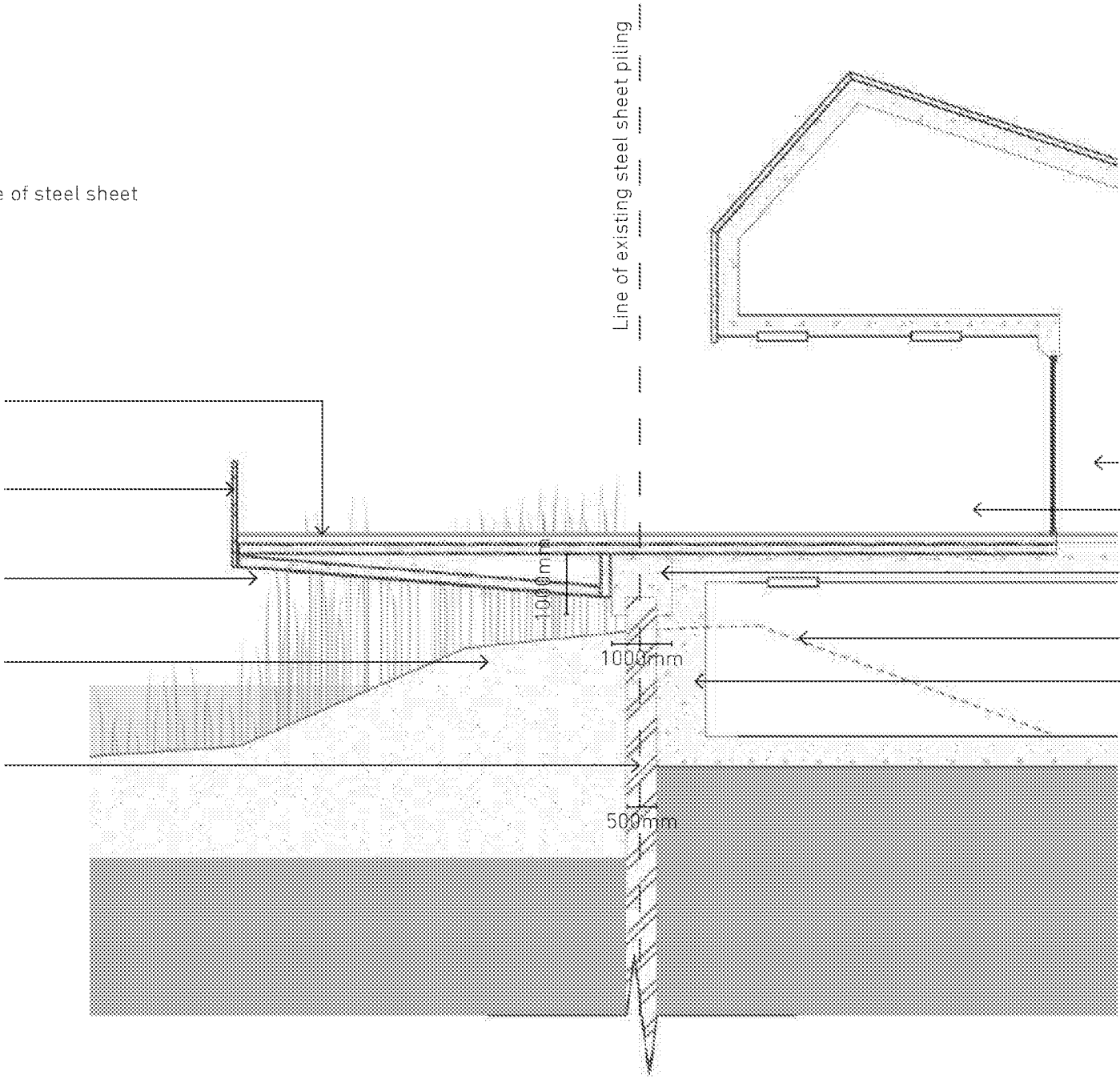
Perforated external flooring to allow light onto vegetation below

1200mm high guarding

Steel structure supporting jetty subject to structural engineers calculations

Existing mudflats / saltmarsh

Steel sheet piling A239-700 or Larssen 603 subject to structural engineer calculations



Line of existing steel sheet piling

Restaurant / cafe entrance

Covered external space

Concrete capping beam 1000x1000mm

Line of existing bund

Concrete retaining wall to car park

6.7. Access & Movement

The following section provides further information on the movement strategy of the proposed development and how this connects into existing infrastructure.

The proposed development includes infrastructure for a range of methods, these include; vehicles, pedestrian footpaths, cycle paths, moorings for boat users and a ferry stop for the Littlehampton Ferry.

6.7.1. Vehicular access

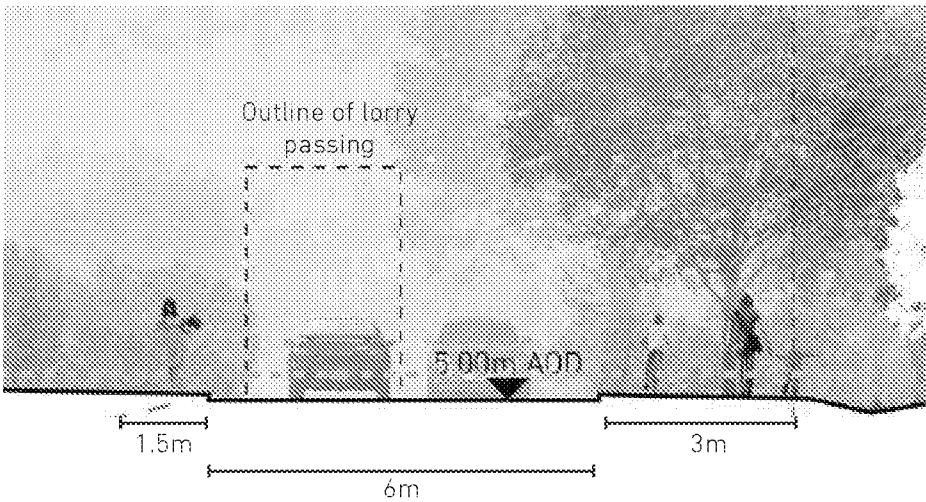
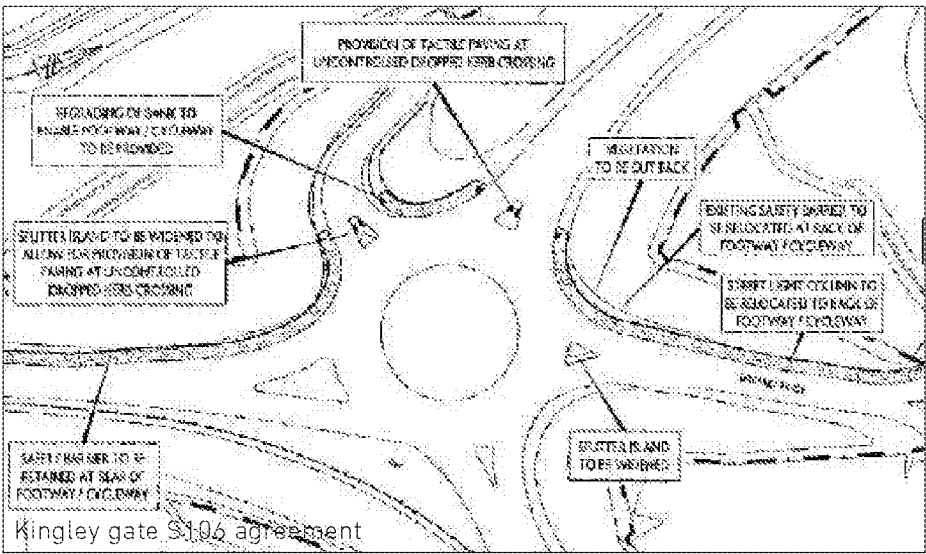
The site can be accessed via the western arm of the A259 Bridge Road Roundabout. The roundabout arm is two lane, allowing a dedicated access and egress to the site. This connects to an existing 6.0m wide road that passes north into the centre of the site. This is sufficient for a two lane road in which two lorries may pass suitable for all development traffic, including emergency vehicles. The new carriageway, serving the southern half of the site, will be designed to match this. The two carriageways will descend from 5.5m AOD to 2.0m AOD at a max. 8% slope, with a turning head at the end, in accordance with 'manual for streets'.

The proposed width will allow for two cars/lorries to pass, in accordance with manual for the streets (fig. 7.1) showing the 5.5m wide carriageway.

6.7.2. Foot and cycle paths

Pedestrian and cycle infrastructure has been incorporated into the scheme to encourage healthy and sustainable choices, making it as easy to walk or cycle into the town centre from the site and to access public transport links.

A new 3m wide footpath and cycleway will be created alongside both carriageways within the site.



Section showing street hierarchy



A foot and cycle path will extend from the site entrance through to the centre of the site connecting with the riverside path all at the same level. The proposal is to enter into a S106 agreement to contribute to the provision of a new cycle path and footway, similar to that proposed by the s106 agreement for Kingley gate (opposite), extending access into the centre of Littlehampton.

6.7.3. Accessibility

The development includes methods to provide a landscape easily accessible by all, including the young, elderly and those with movement difficulties.

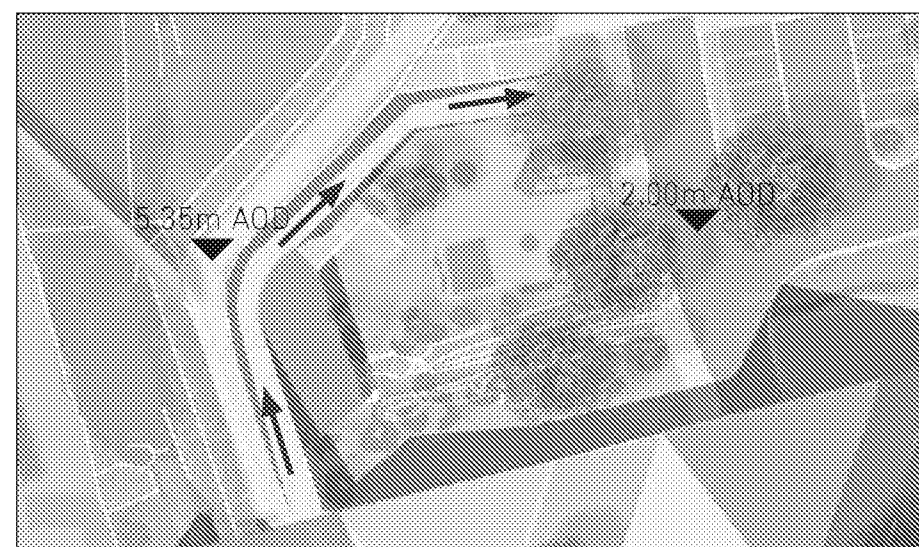
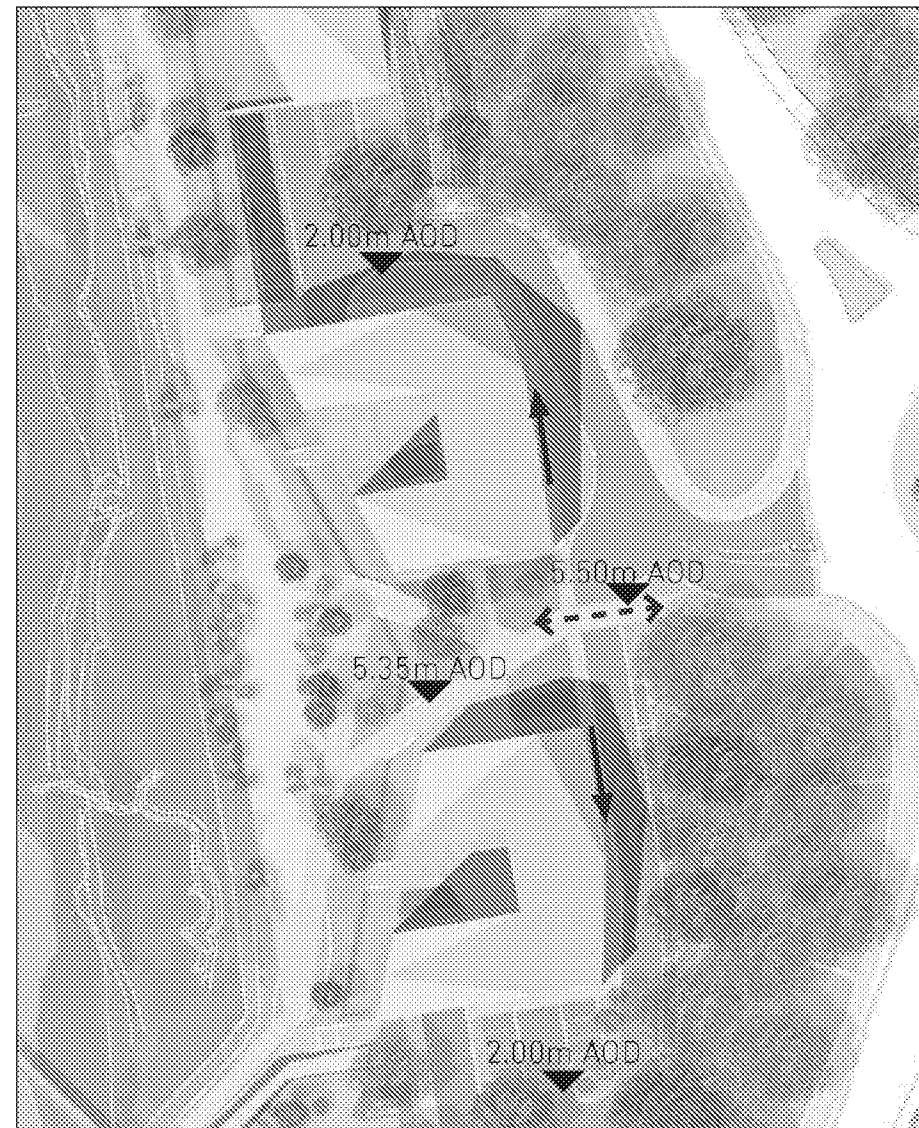
The landscape is set at two levels, the Lower Ground Level at 2.0m AOD and the Upper Ground Level at 5.35m AOD. In the south of the site, in the Bridge Reach character area, a sloped walkway is provided with landings looking over the play area as you walk up to the upper ground level.

As mentioned above, in the Riverside character area, a cycle path and footpath is provided from the entrance to the site straight onto the upper ground level park area.

6.7.4. Connecting to existing infrastructure

It is proposed that the residential development will connect to the existing infrastructure nearby. A vehicular route is already existing from the Bridge Road roundabout.

In regard to the cycle and pedestrian infrastructure it is proposed to fulfill the previous section 106 agreement for the Kingley Gate development which includes improvements to the Bridge Road roundabout. This will provide connections from the application site into the town centre of Littlehampton, to the local centre, to existing public transport network and up to the new Kingley Gate development.



6.8. Cycle and Car Parking Strategy

6.8.1. Public transport / parking principles

The following transport and parking principles have been applied to the development.

- Encourage sustainable means of transport by making this readily accessible and with ample provision
- Reduce unnecessary car trips by providing access to local amenities where possible
- Provide ample Electric Vehicle charging points
- Inclusive access to parking, with generous provision of wheelchair accessible parking spaces, well located close to homes or lift cores.

The parking requirements have been determined based on the Arun District Council, Parking Standards Supplementary Planning Document, Jan 2020.

6.8.2. Appropriate Parking Standard

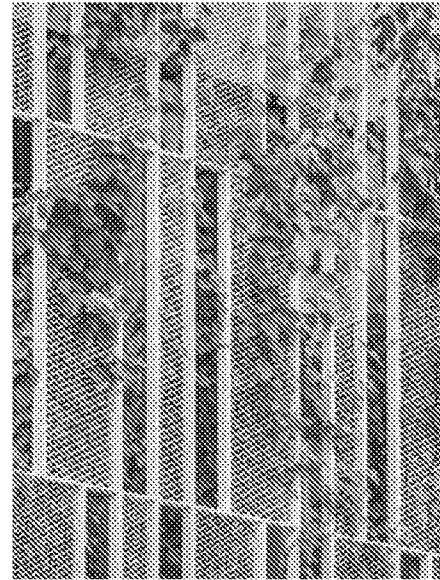
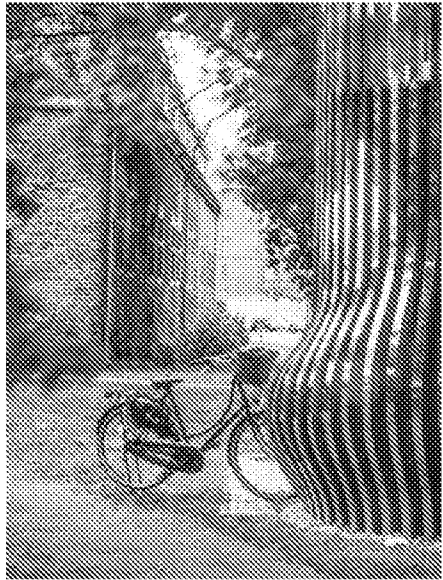
The site falls within the Wick with Toddington Ward. This ward has been designated Parking Behaviour Zone 2, Peri-rural (large villages or small settlements close to towns). However, the allocation of zones by ward does not take into account the proximity to public transport as would be normal with a Public Transport Accessibility Level assessment. The site lies immediately adjacent to Ham Ward and just to the north of the River Ward, both of which have been allocated as Zone 4, Urban (within towns but not in a central location). The site, is within the Littlehampton Economic Growth Area, it is on the edge of the town, it has a much better opportunity to access public transport than many parts of both of these wards (see public transport accessibility assessment) therefore it is fair to assume that parking standards could and should reasonably set in accordance with Zone 4 guidance.

The Parking Requirement, based on Parking Behaviour Zone 4 is set out in the table opposite and in the accompanying Transport Statement.

Use	Vehicular Spaces (required)	Required	Vehicular (proposed)	EV charging points (2023 30% of spaces)	Cycle Spaces (required)	Required	Cycle (proposed)	Motor cycle (Proposed)
1-2 bed home	1 per unit	66	158	50	1 per unit	105	150	10
3+ bed flat	2 per unit	78			1 per unit			
Visitor	20% of no. units	21	27					
Moorings (leisure)	0 on the basis that they are provided with the flats		0				0	
A1 Shops	1 space per 14sqm	5	5	2	1 per 100sqm for staff and 1 space per 100sqm for customers	1.4	15	
A3 restaurant	1 per 5 sqm of public area and 2 per 5m of bar	15	16	5	1 per 4 staff and 1 per 25 sqm for customers	4	15	
Total		185.9	206	57		111.4	180	10

Summary of proposed:

Vehicular parking:	206
EV charging points:	57
Cycle Spaces:	180
Motorcycle Spaces:	10



6.8.3. Sustainable Transport

A strong emphasis is placed on walking and cycling ahead of car use. Good design helps to promote community cohesion and discourage antisocial behaviour.

Due to the location of the site there will be no opportunity for in street parking. Principles:

- Cycle parking will be provided above minimum standards.
- Electric Vehicle charging points will be provided in excess of minimum standards.
- 25% visitor parking spaces will be provided, exceeding the minimum standards.
- Parking for disabled people is consistent with guidance in "Manual for Streets" and in excess of minimum standards.
- Motorcycle parking is consistent with guidance in "Manual for Streets".

All parking spaces will be allocated, including visitor spaces. 30% of all spaces will have an electric vehicle charging point. All other spaces will be provided with the infrastructure for future installation of an electric vehicle charging point.

The Travel Plan has been prepared to provide high levels of accessibility to non-car modes of travel and to local amenities

and facilities; and the site will have a managed and Controlled Parking Zone.

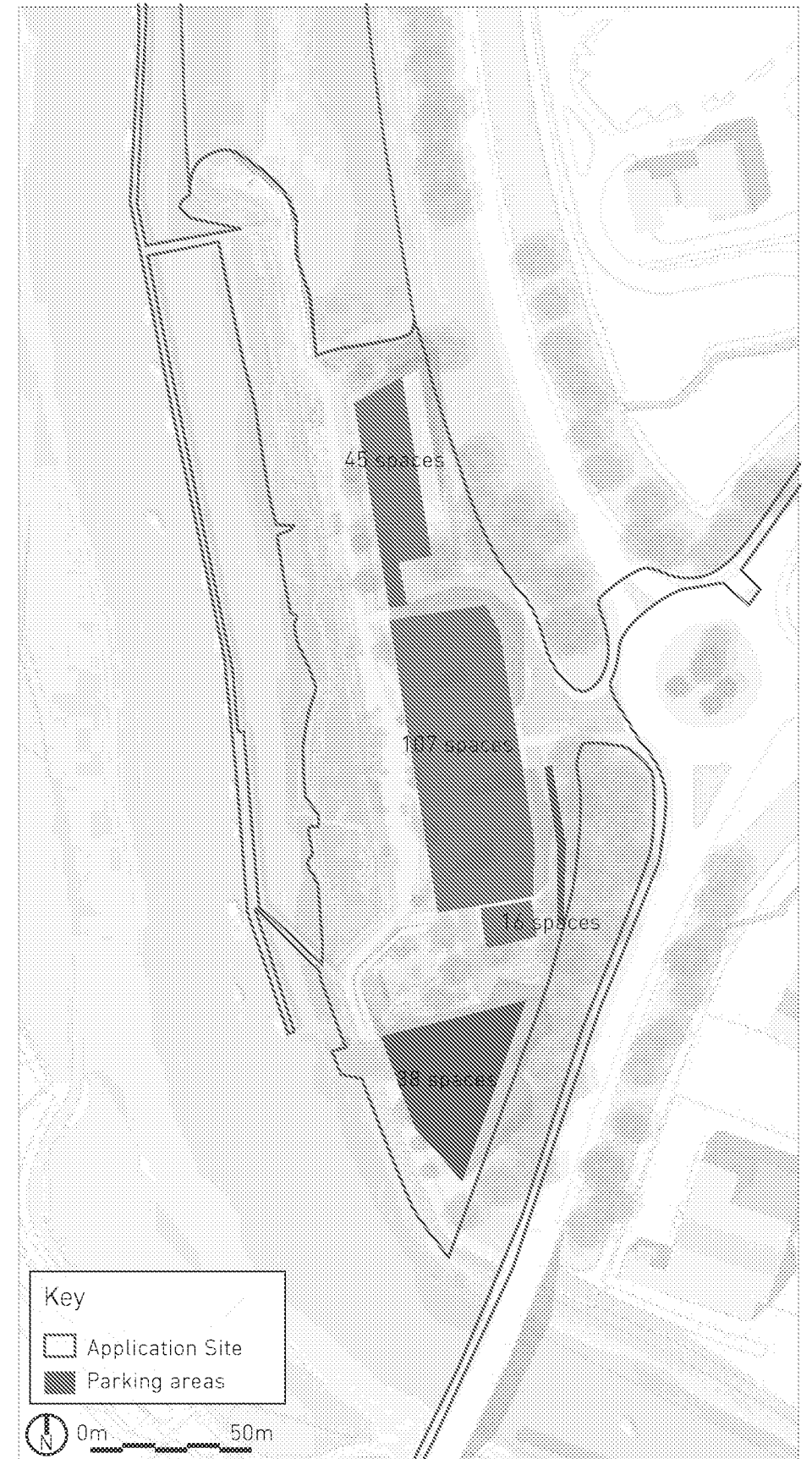
It states 'To satisfy the promotion of sustainable travel modes and choices it is considered that a 10% variation below the target parking demand value be allowed where appropriate travel option provision is provided including travel plans, public transport contributions and other sustainable travel initiatives.'

Therefore a 10% variation below the minimum requirements could be considered acceptable. As the parking provision meets the minimum standard required for Zone 4 and promotes sustainable travel, it could be considered that there is 10% betterment of minimum requirements.

6.8.4. Parking Design

The parking is laid out on one level below the new ground floor to the buildings, as illustrated in the plan on the following page. The parking is predominantly hidden beneath the new landscaped deck and where it isn't it is proposed to be screened behind trellis walls.

All cycle spaces will be in secure enclosures with some additional visitor cycle parking located near to the park areas.

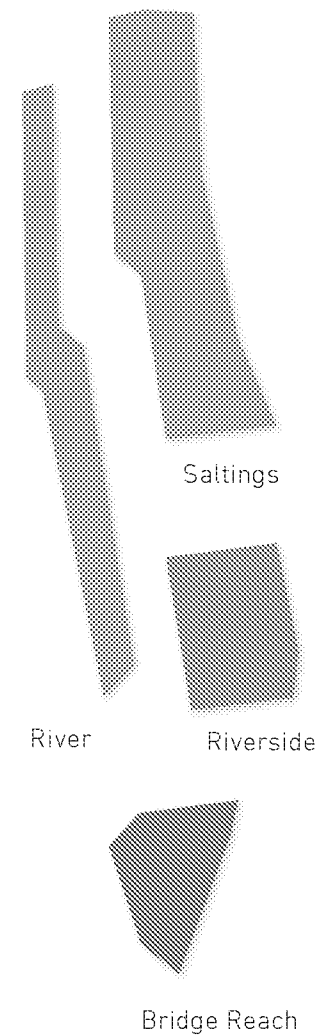


6.9. Character areas

The development is conceived as three overlapping zones, each with different relationships to urban and rural environments surrounding the application site. The zones transition from the more urban environment in the south to the more natural environment in the north. The three zones are:

- The Saltings (in the north)
- Riverside (in the centre)
- Bridge Reach (in the south)

These zones set the character of the buildings, the landscape, the open space, and the public realm. Common themes would run through the architecture and landscape but they would subtly transition from one zone to the next. For instance a more refined public realm incorporating 'sandy yellow' paved areas would be used in the south, while more rustic 'sandy yellow' breed on gravel areas would be used in the north. They are described in more detail in the following pages. The river front is also described in its own right.



6.10. The river

The river front plays an important role in each character zone. It is also important to consider the wider context along the river. The river frontage from south of the A259 down to the river mouth is lined with moorings, pontoons and quayside. This active frontage appears to terminate abruptly below the bridge. Historically the site would have been part of the active riverfront of Littlehampton, with a slipway (still evident) and timber quay for loading and unloading. Further upstream moorings start again set against the backdrop of farmland.

6.10.1. Activating the river

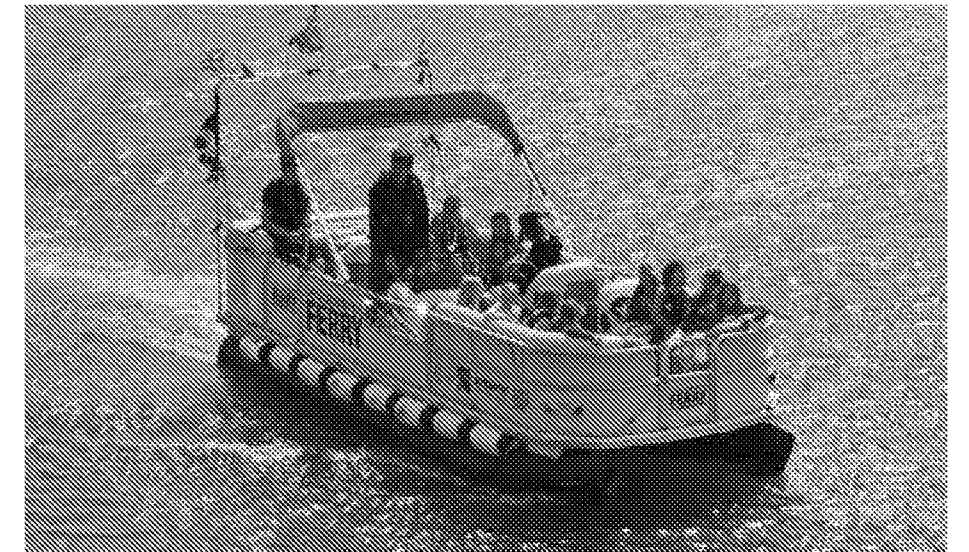
The proposal is to re-establish the active river frontage, firstly continuing the leisure craft moorings north of the A259, secondly providing one or two stops for the Littlehampton Ferry and thirdly providing a vibrant landscape marking the edge of the town.



Artist's impression of Hampton Quay proposal showing residential and leisure moorings



Private moorings on the River Arun at Ford



Littlehampton Ferry (operated by the applicant)

6.11. Existing inter-tidal habitat

"Coastal saltmarshes in the UK comprise the upper, vegetated portions of intertidal mudflats, lying approximately between mean high water neap tides and mean high water spring tides". UK Biodiversity Action Plan Priority Habitat Descriptions, Nov 2016.

The Defra / JNCC report, 'Making Earth Observation Work for UK Biodiversity Conservation - Phase 2, April 2013' outlines the mission for Biodiversity 2020. *"to halt biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people."*

The objectives of Biodiversity 2020 include 'no net loss of Priority habitat', which includes Coastal Saltmarsh and therefore, applies to the application site.

There are two existing areas of inter-tidal habitat within the site boundary. These are located in the northern half of the site and along the west boundary of the site. See these habitats highlighted on the map opposite.

Additional specialist advice has been provided by Carcinus and AQASS to undertake a site visit, outline observations discussing present habitats and their condition and brief details on sensitivities, as well as additional advice on the proposals and how the development can work with and integrate these habitats into the proposal.

The saltmarsh within the northern half of the site was created through realignment of the flood defences by the Environment Agency during the upgrades in 2013-2015 to mitigate the loss of habitat further downstream.

The marsh along the west boundary of the site is a designated Priority Habitat Inventory - Coastal Saltmarsh. The length of saltmarsh extends from the south boundary line up to the slipway where it ends abruptly.

"The marsh area is providing an important coastal protection function, is suffering some erosion at its forward edge and is unable to migrate further inland due to the sudden rise in landform thus is suffering coastal squeeze".

See supporting ecology documents for further detail.



Information References

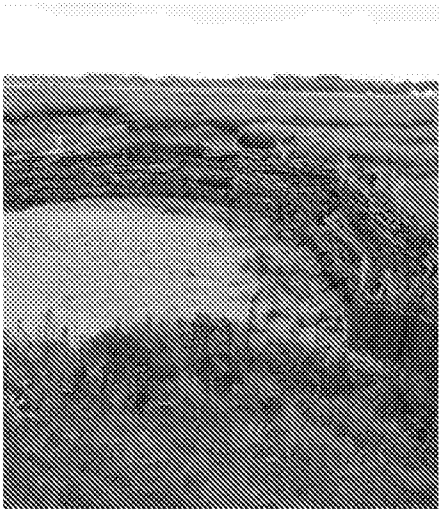
Site visit summary document, Carcinus & AQASS, July 2019.

The Hampton Quay pontoon and moorings have been developed in liaison with Carcinus and AQASS. During these discussions we were able to identify the likely challenges to the original ideas and the methods which can be implemented to improve the proposal while also providing protection to the saltmarsh habitats and potential to create biodiversity enhancement.

Carcinus identified that pontoons could help to protect the marsh from erosion. Several development points are listed below which outline the moves taken to ensure protection of the saltmarsh habitats:

- Pontoons extended along the entire length of the salt marsh area to provide protection from erosion.
- Line of pontoons moved further into the river channel so as not to create shading and subsequent erosion.
- Protection from vesselwash will be incorporated into the pontoons preventing water washing against the west boundary and again preventing subsequent erosion.
- The use of spit access to connect to the pontoons has been implemented avoiding shade cover of the fine marsh/mudflat areas.
- Restrict use to the outer edge of the pontoons for larger vessels to prevent erosion due to prop wash and movement.
- A saltmarsh retention programme could be implemented along the west boundary to restore existing areas of erosion and enhance the overall condition of the habitat.

1. Spit access to pontoon walkway
2. Ferry stop
3. Bird hide



Example of a saltmarsh retention programme in Falkenham



Informal advice was sought from Natural England on the 17th August 2020. The inter-tidal habitat within the site boundary was discussed in the context of the following:

- Sea level rise;

Natural England highlighted that a provision for future expansion of the saltmarsh should be considered to provide an opportunity for compensation when sea levels begin to encroach on the lower reaches of the inter-tidal habitat. Please see opportunity areas highlighted opposite of where expansion could occur.

- Proposed pontoons;

Further detail on how the pontoons will be implemented will be provided at reserved matters stage, however, it is envisaged that the mooring positions will only be provided along one side of the pontoons preventing direct wash on to the areas of saltmarsh.

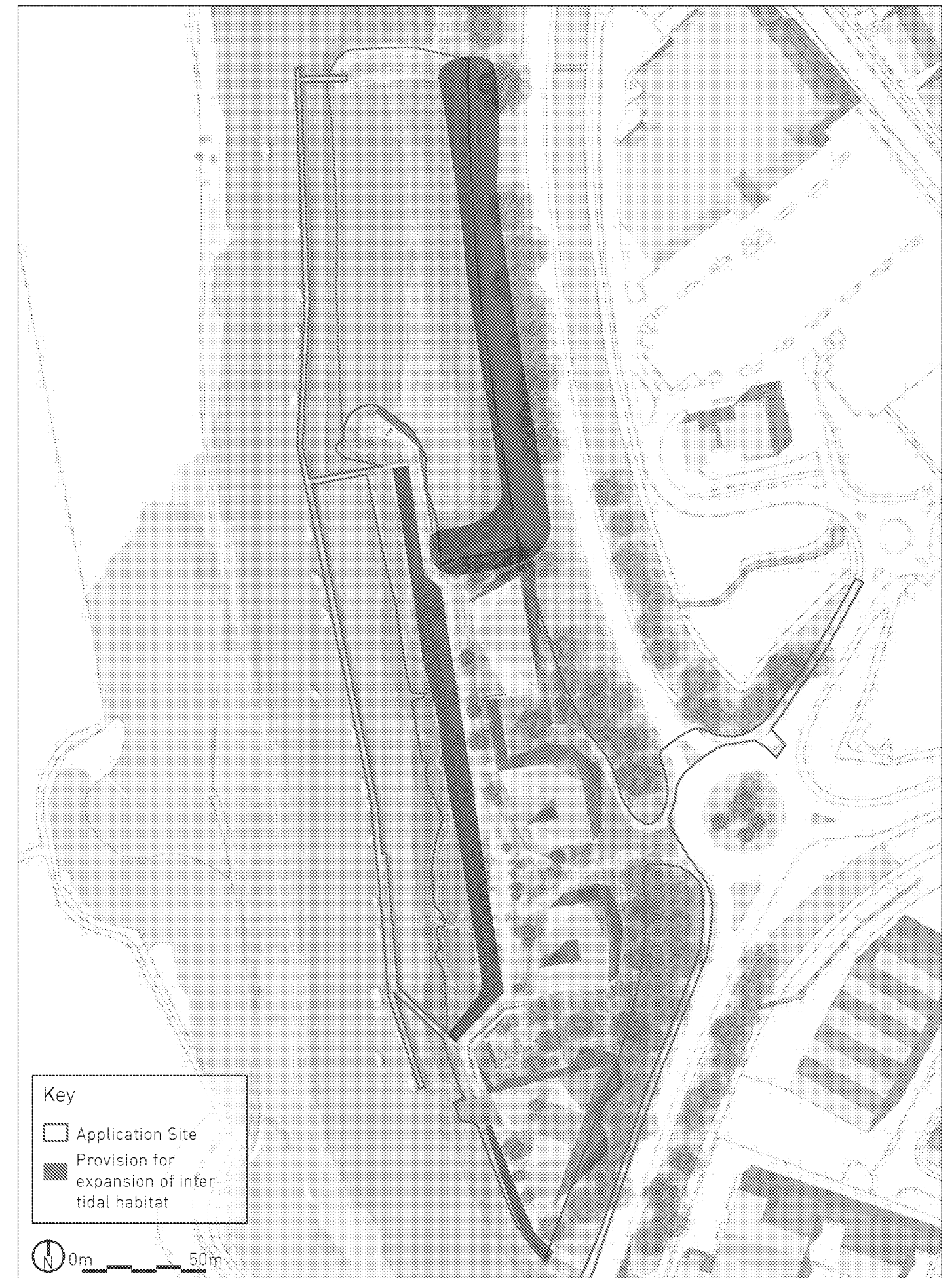
- Habitat monitoring;

The provision for habitat monitoring was welcomed and could enable the habitat to maintain it's structure in particular, along the west boundary. Please see EclA for further information.

- Managing future residents

It was highlighted that consideration should be implemented to manage the future population of residents on site in regard to the presence of the habitat. Educational notice boards could be implemented to raise awareness of the types of planting and wildlife which are present in these inter-tidal areas.

It would also make residents aware of the importance of the habitat and help minimise human impact on this by providing border planting as a barrier between human activity and important saltmarsh habitat.

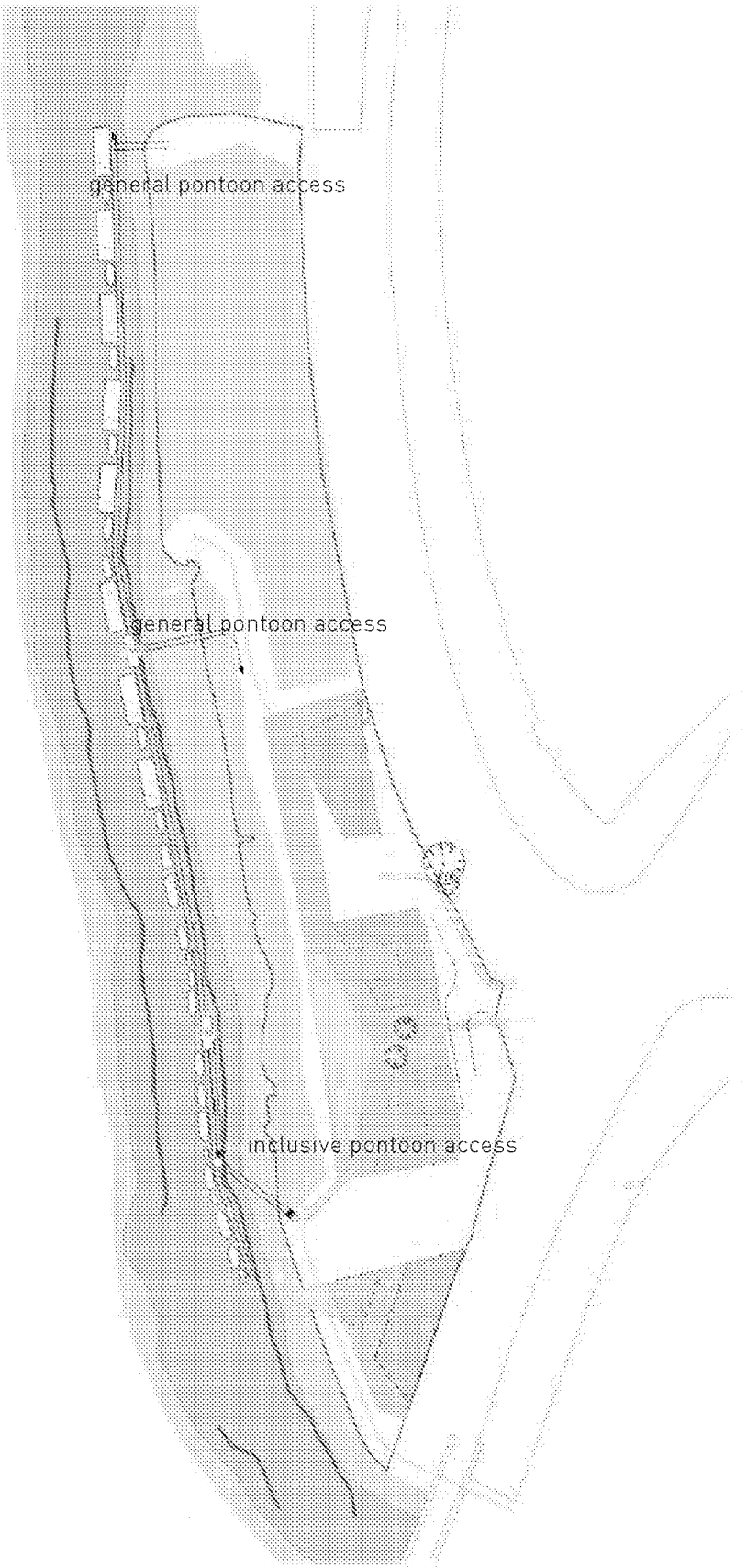
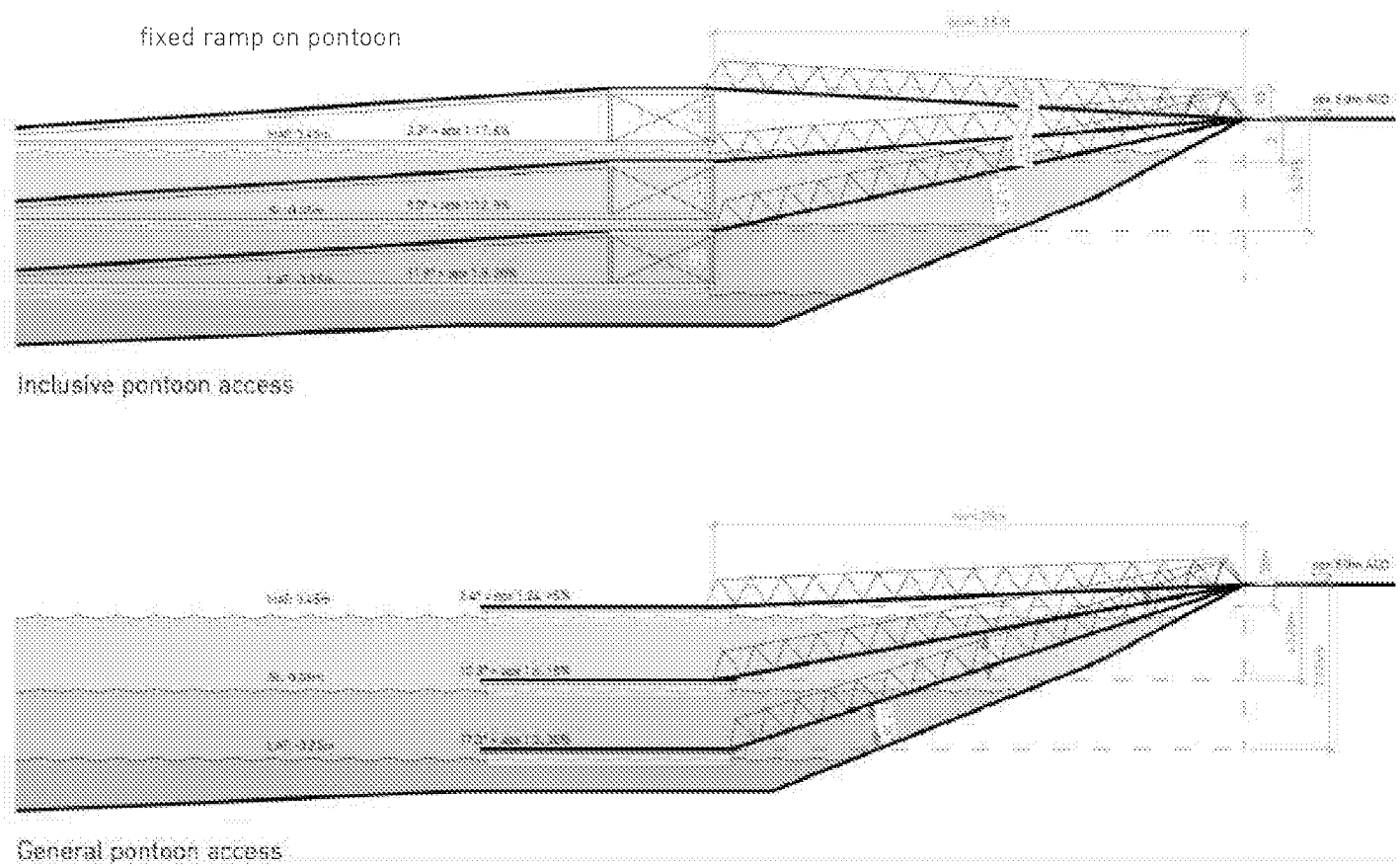


6.12. Moorings

New pontoons will provide a continuous walkway in front of the river bank for leisure moorings. This will create a buffer between the salt marsh and the river traffic. The additional moorings will increase traffic along this stretch of river, which would seem to be at conflict with the protecting the habitat. However, the additional moorings should help to slow the river traffic and the marine ecologist has advised that the pontoons help to reduce the damaging wave action to the marsh, caused by passing boats. This is a good example of a new intervention providing co-benefits to natural ecology.

6.12.1. Inclusive access

The intention is to create inclusive access to the Arun Ferry stops and leisure moorings. This is particularly challenging as the low tide is almost 8m below the line of the 100yr+ CC flood defences. The solution involves intermediary levels and a balance between ramp gradient and pragmatic structure, see details below.



6.13. The Saltings

The Saltings in the north marks the extremity of the development, and to the extremity of Littlehampton. The design is planned to respect and protect the habitat to the north and to enjoy the vistas over and beyond this.

The river front path would provide access to the ground floor of the buildings. The road would descend from the roundabout to the parking level set below.

Public footpaths would be set back from the waterfront and the edge of the marsh and they would be set within a planted 'upland habitat', that typical marks the transitional from land to inter-tidal habitats.

The spit of land (that was formed when the previous defences were removed) could form a quite, contemplative spot for ornithology, set behind a discreet timber screen.

The SALTINGS	
Scale:	2-3 storeys
Materials:	Brick or tile
Landscape:	Semi-natural transitioning to natural
Features:	Bird hide, riverside seating areas



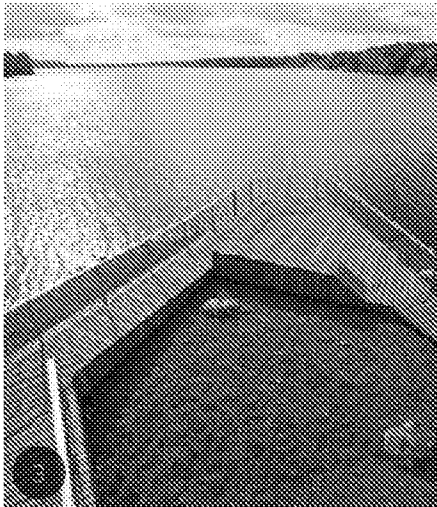
1. The pontoon decking will create a walkway alongside the saltmarsh and mudflats.

example: Perreux River banks, Central France



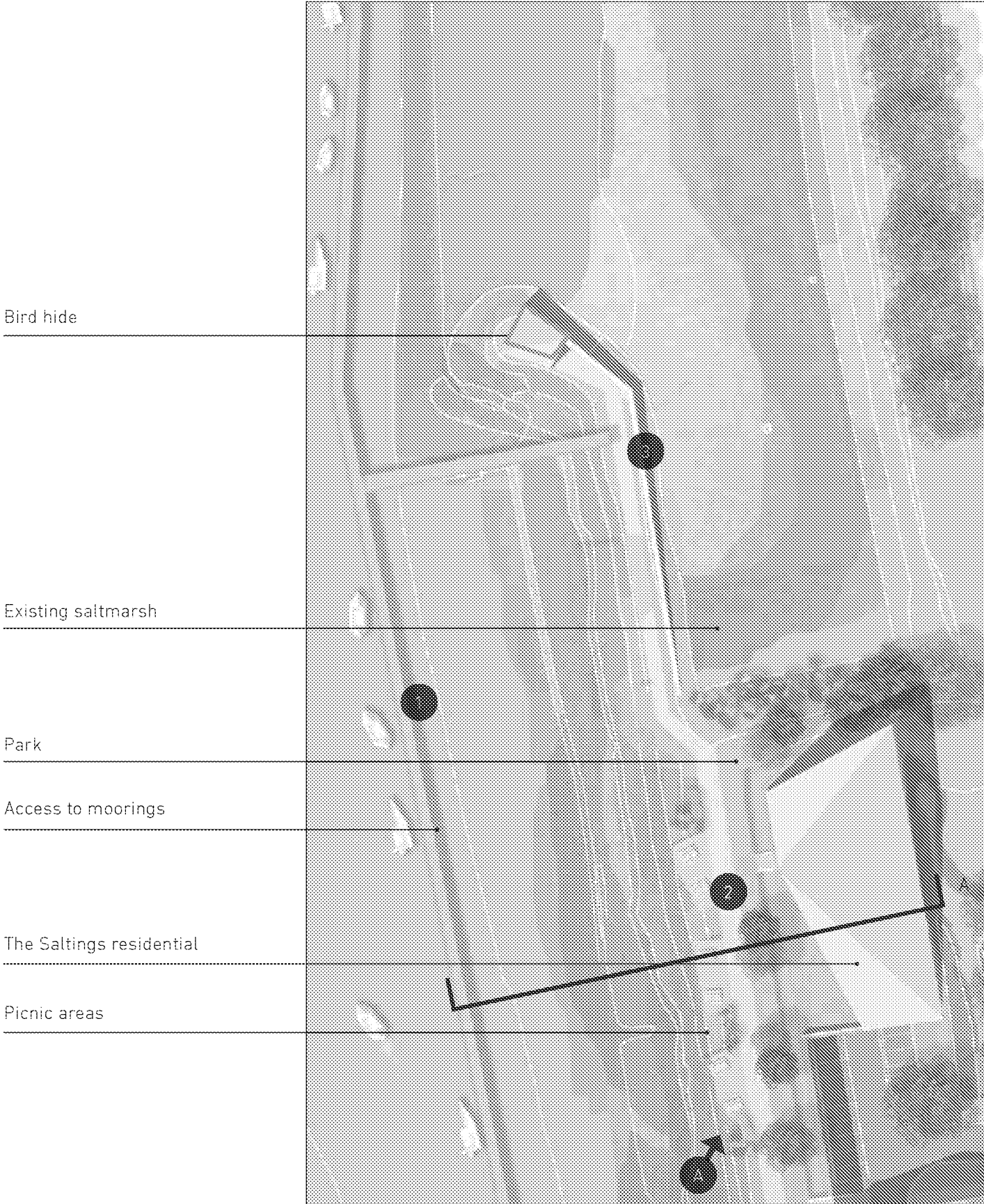
2. Foot paths will be set back from the waters edge and behind an area of upland planting.

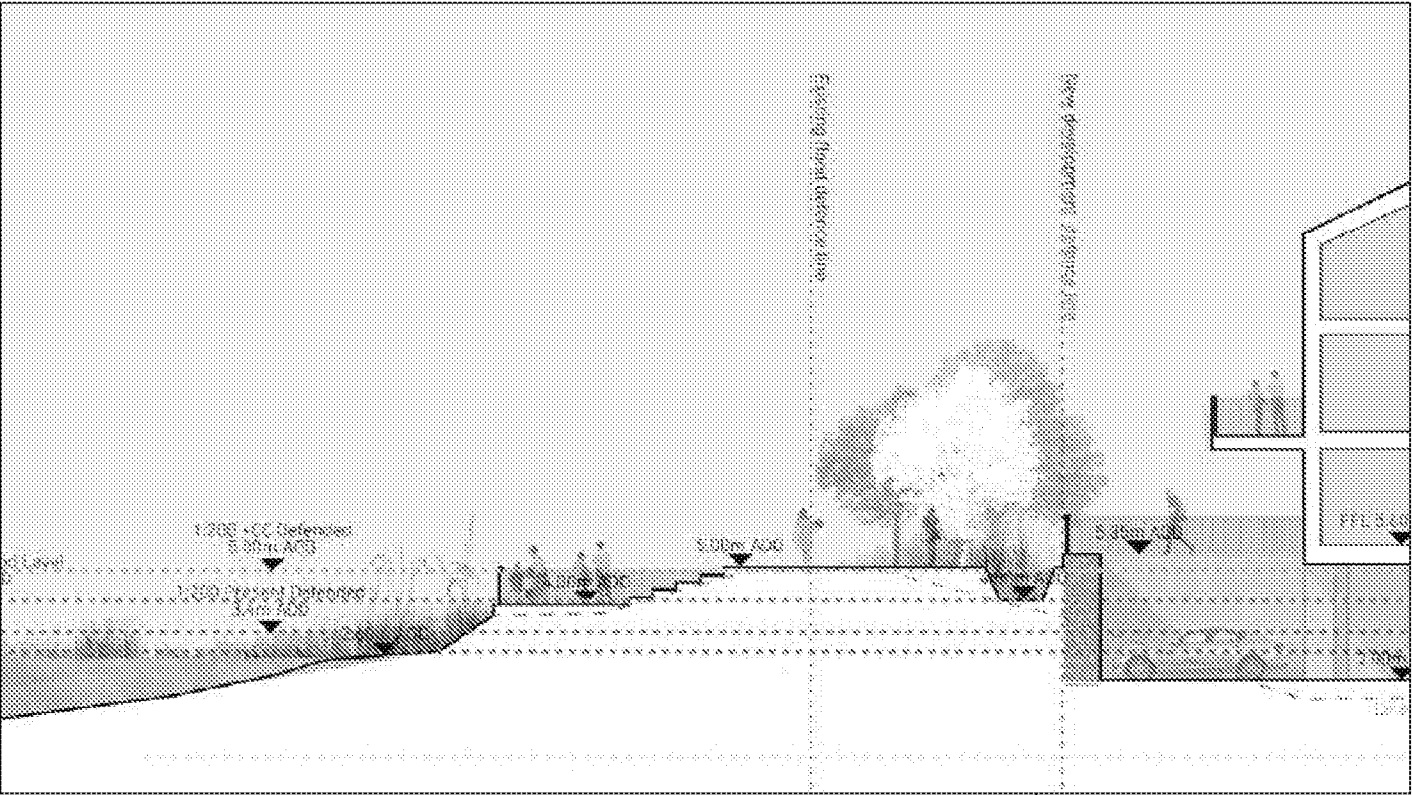
example: Tianjin Qiaoyuan Wetland Park, China



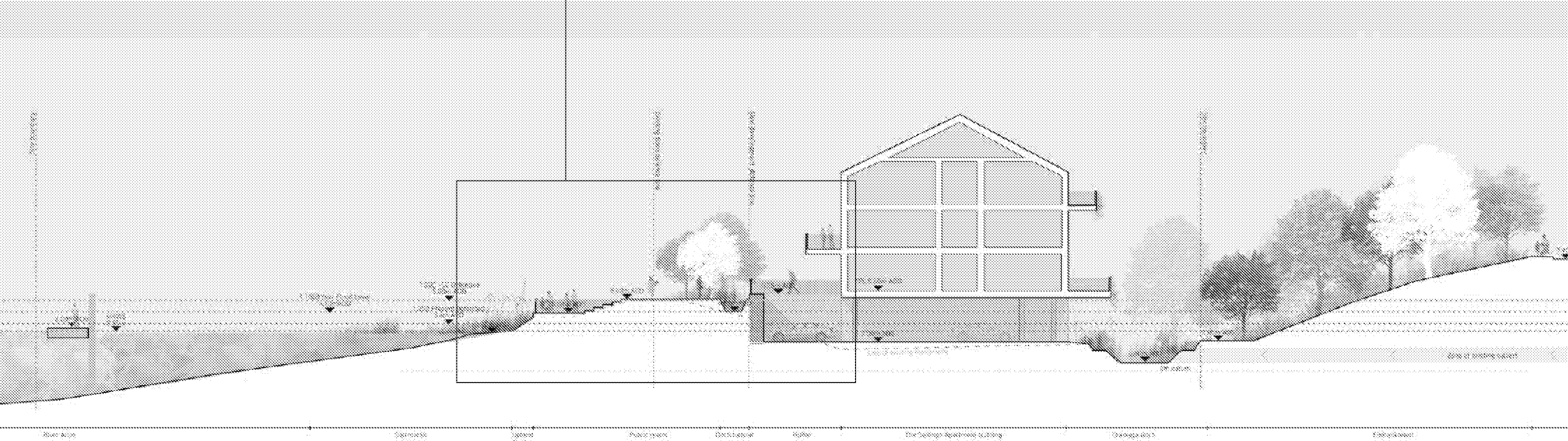
3. A new path will be created along the spit, terminating in a small bird hide, overlooking the marsh.

example: Memorial Park, Krievkalna Island, Latvia





Aerial view towards The Saltings apartment building



Section B

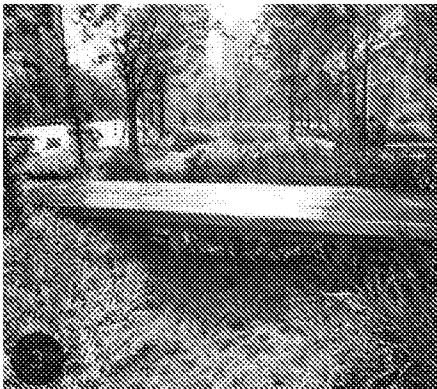
6.14. Riverside

Riverside is the area of the development that runs parallel to the river, set back behind the salt marsh. This area is the centre of the site and the gateway into the development.

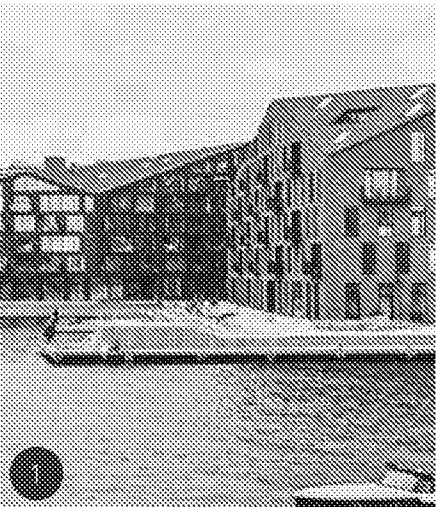
The two central buildings will frame the entrance to the site by foot or by bicycle. This area will provide an informal landscaped square with a small shop / office unit. Each of the central buildings will contain a 'shared house' at ground floor, opening onto a shared courtyard space. These will be separated from the front by the swale, providing a subtle division between public and private space.

A public footpath runs along the river edge, broken by a play area, with activities for all ages. This will connect with the central square. The Saltings and extended footpath towards the bridge. The path is lit with low level bollard lights to create an attractive aspect and minimise the effect on the river wildlife.

RIVERSIDE	
Scale:	4-5 storeys
Materials:	Brick or tile
Landscape:	Hard and soft landscaping
Features:	Local play area, shop and square, swale / wet fence

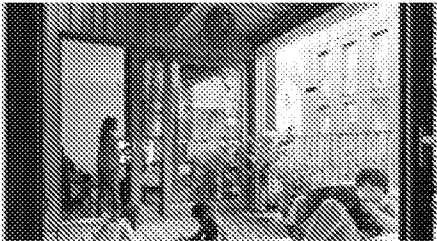


3. Shallow planted swale



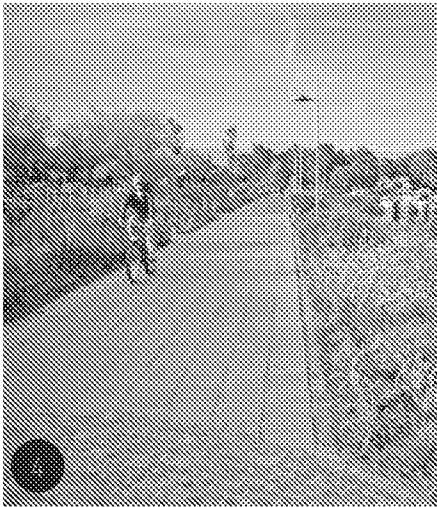
1. High-quality architectural buildings along the riverfront will provide unique riverside living and gateway to Littlehampton.

example: Copenhagen



2. Semi-private courtyard space will be abundant with greenery and outdoor seating providing a communal space for all residents to enjoy.

example: Concept image, Bellerup, Copenhagen & Former soap factory, Brussels



4. A riverside path connected to the rest of Littlehampton could become part of a unique trail from Littlehampton to Arundel enhancing pedestrian access to the riverfront.
example: Solvesborg, Sweden

Shop / office

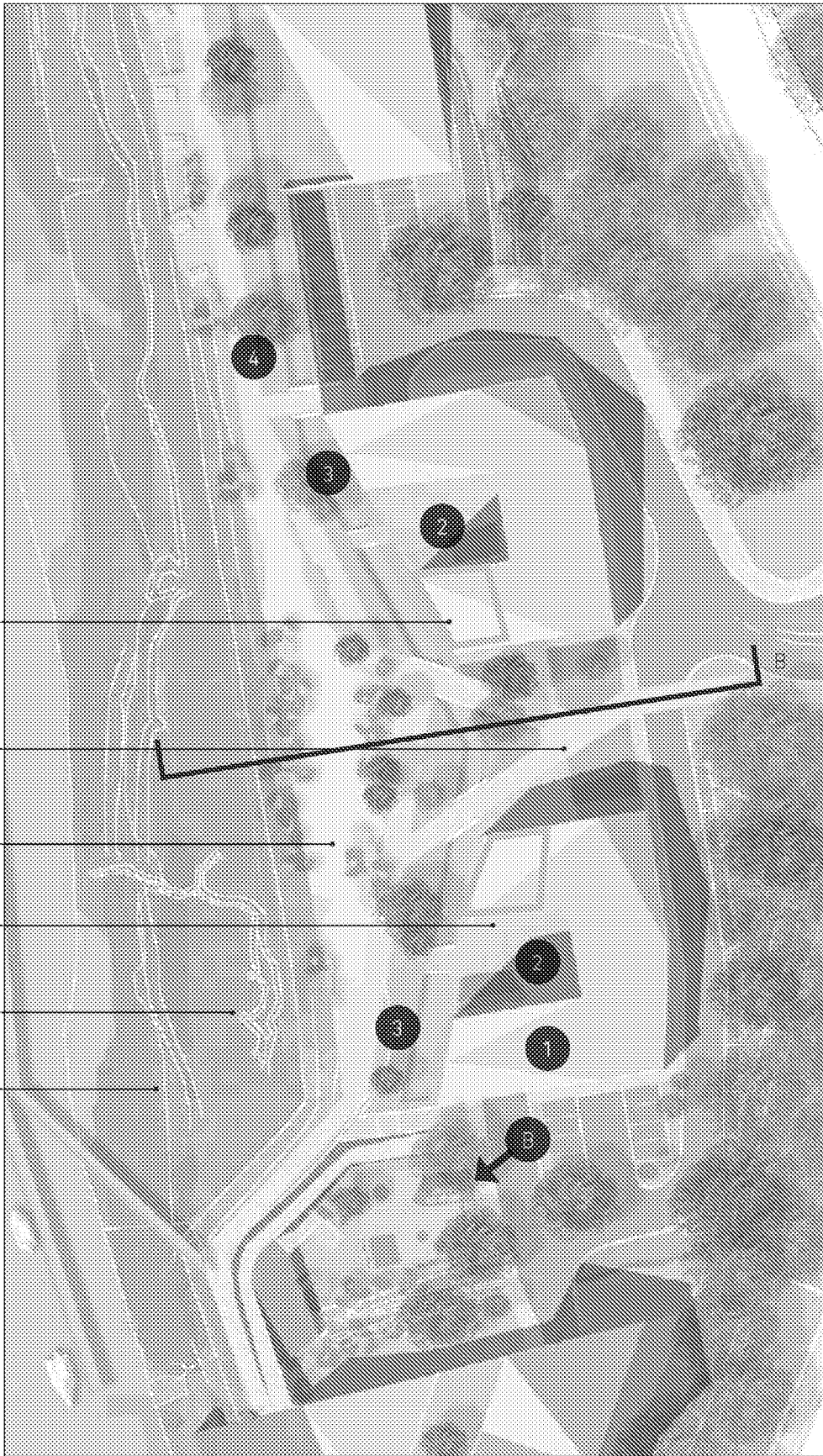
Cycle path into site

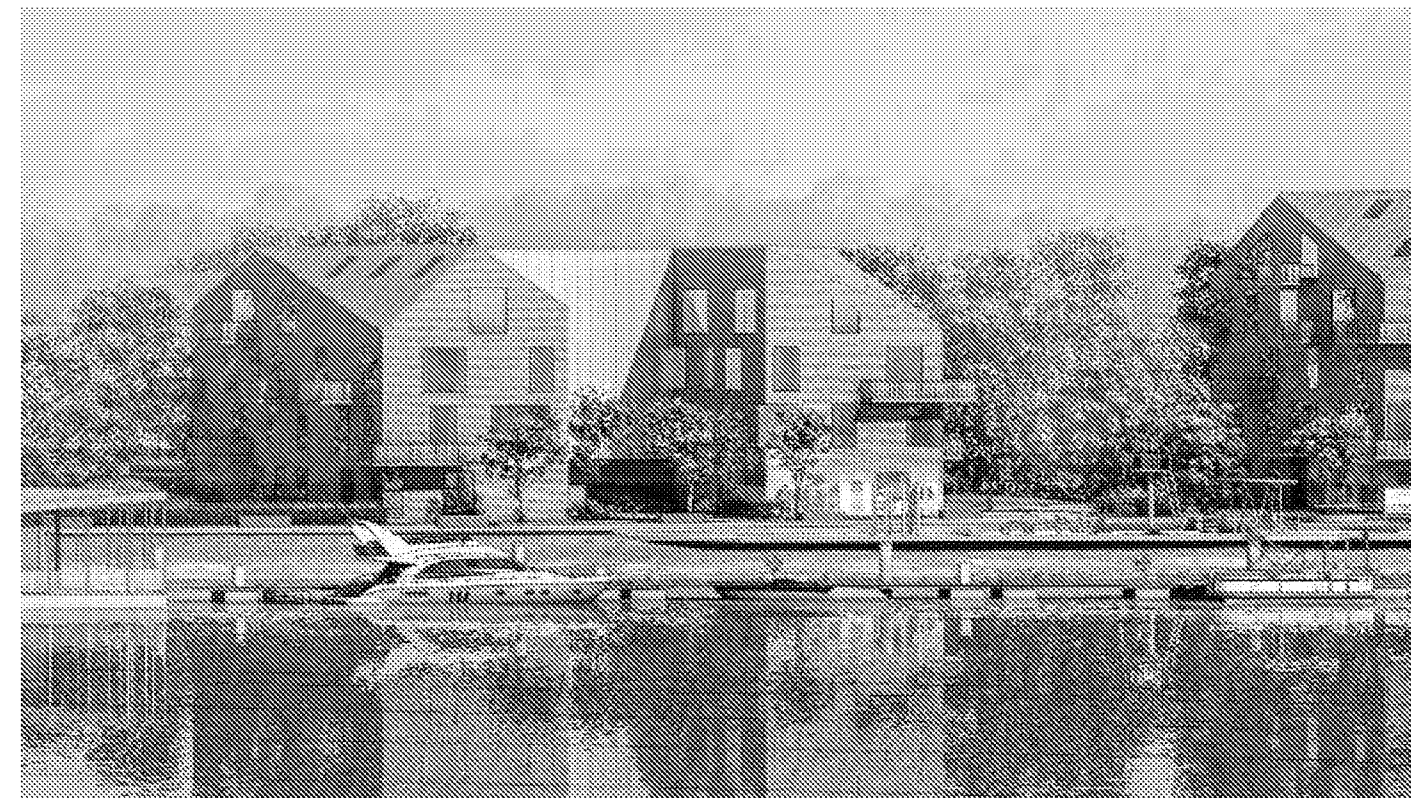
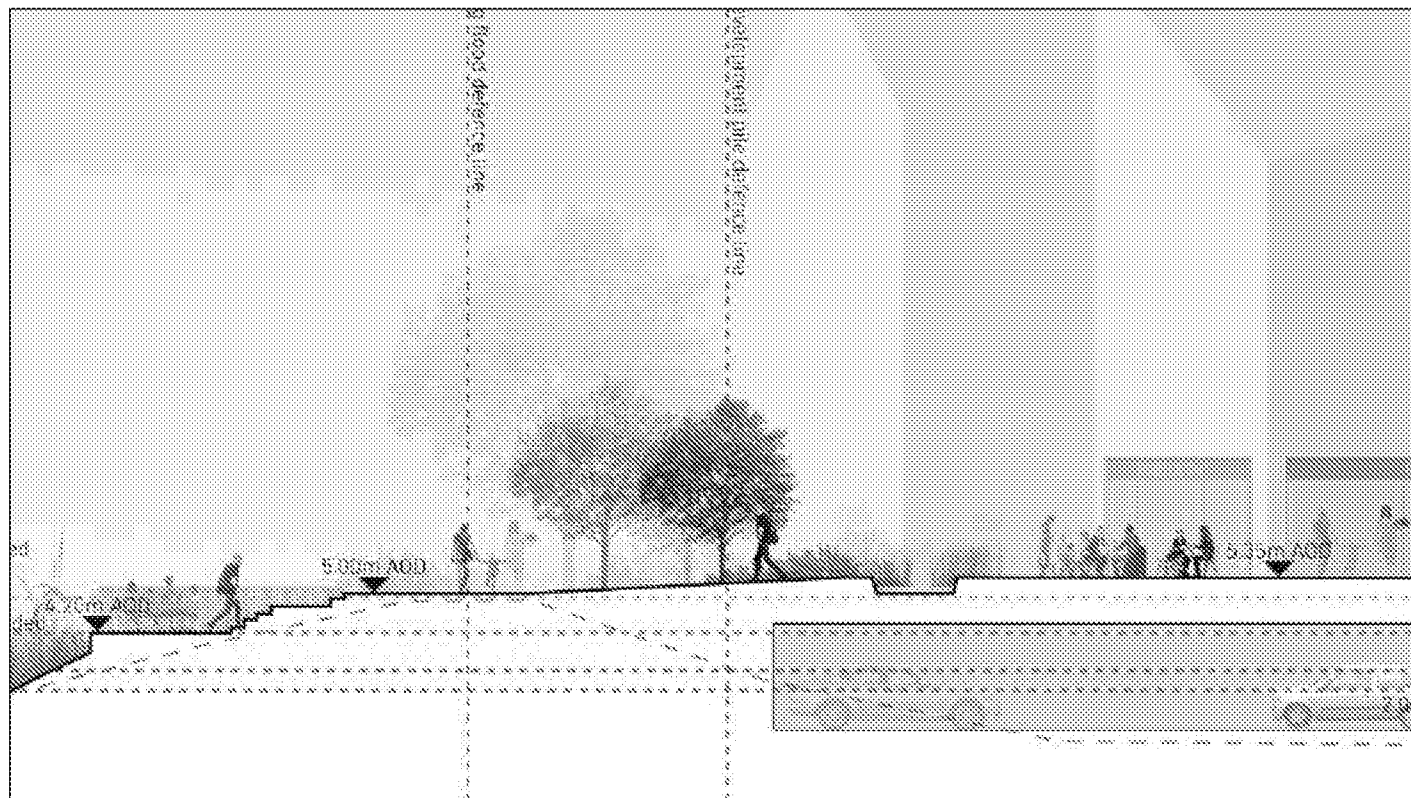
Informal play area

South Close residential

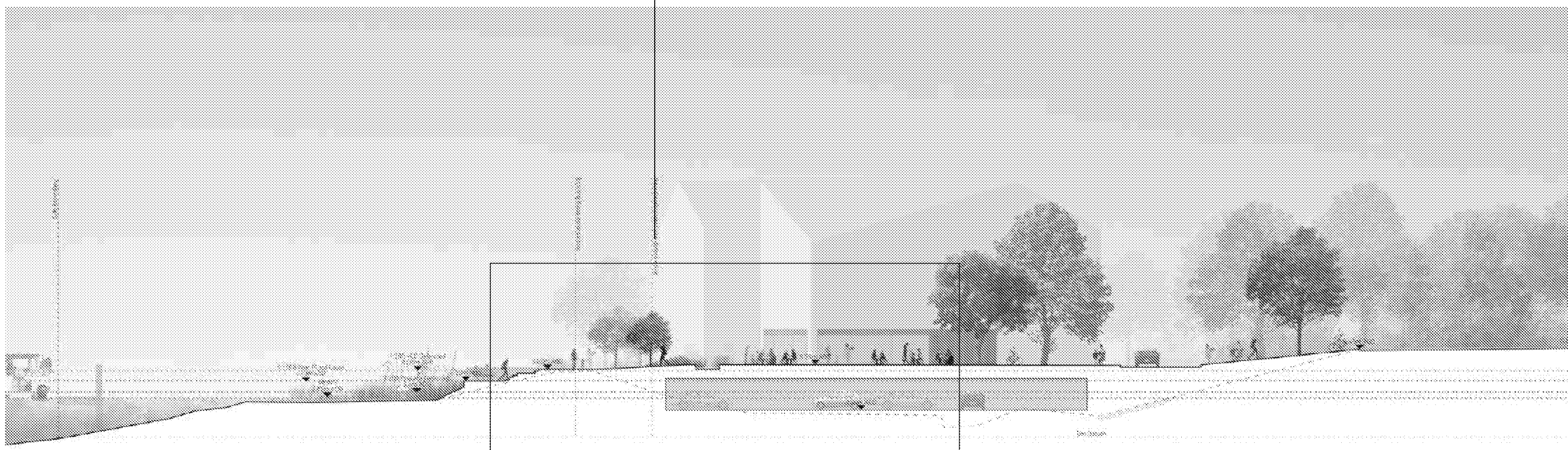
Existing Saltmarsh

Access to moorings





A. View towards 'Riverside' play areas, public realm and residential buildings.



Section D

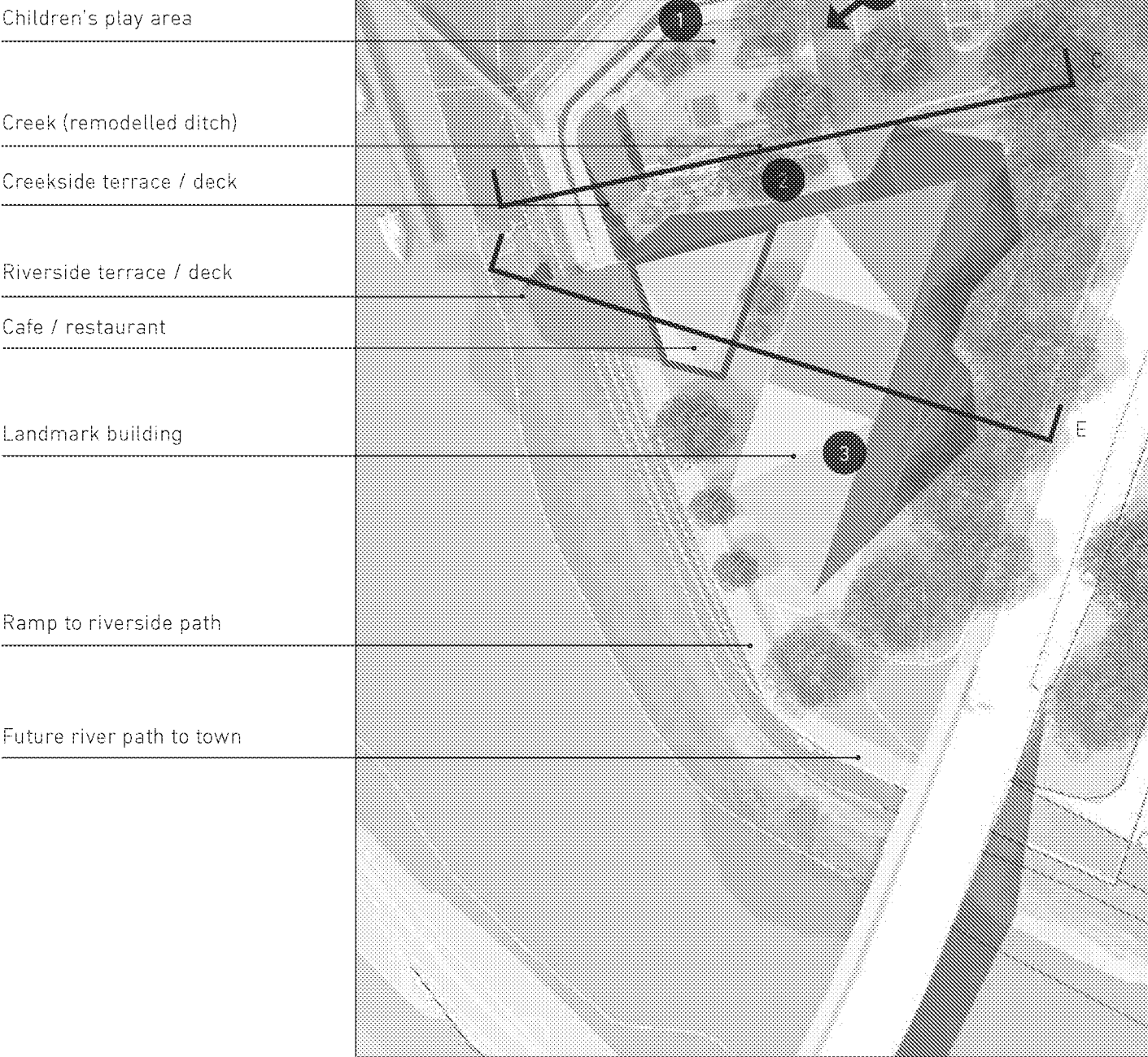
6.15. Bridge Reach

Bridge Reach is located at the southernmost end of the site, where the site meets the bridge to the A259. This important location and gateway to Littlehampton is celebrated with a landmark building.

This area is defined by the highest point on the site and the lowest, through the landmark building and the creek, respectively. The landmark building appears to be divided in two with the taller building clearly visible from the A259 bridge and the lower building forming the cascade of new buildings along the site.

A landscaped play area is created alongside the re-profiled drainage ditch. This area is set behind the flood defences and over looked by the cafe and Building 1 & 2. A gradual ramp provides access to and from the riverside path, via an external terrace overlooking the play area. A cafe terrace overlooking the river adjoins the path. The path ramps down to pass under the A259 bridge and ready to connect with a future riverside path towards the town centre.

Bridge Reach	
Scale:	5-8 storeys
Materials:	Brick or tile
Landscape:	Hard landscaping, controlled planting
Features:	Landmark building, cafe, riverside terrace, creekside play area



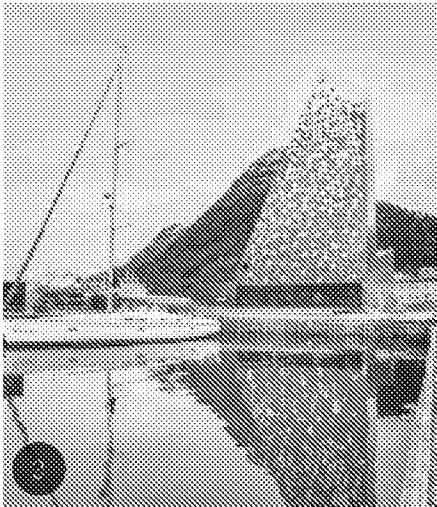
1. A sloped walkway with terraced access part way up provides surveillance over the children's play area while also connecting to the ferry stop and restaurant/cafe.

example: Copenhagen



2. The creek, located alongside the children's play area, provides an improved habitat for voles, reptiles and so on and has been remodelled to allow for greater capacity when water levels increase.

example: Cultuurpark, Amsterdam

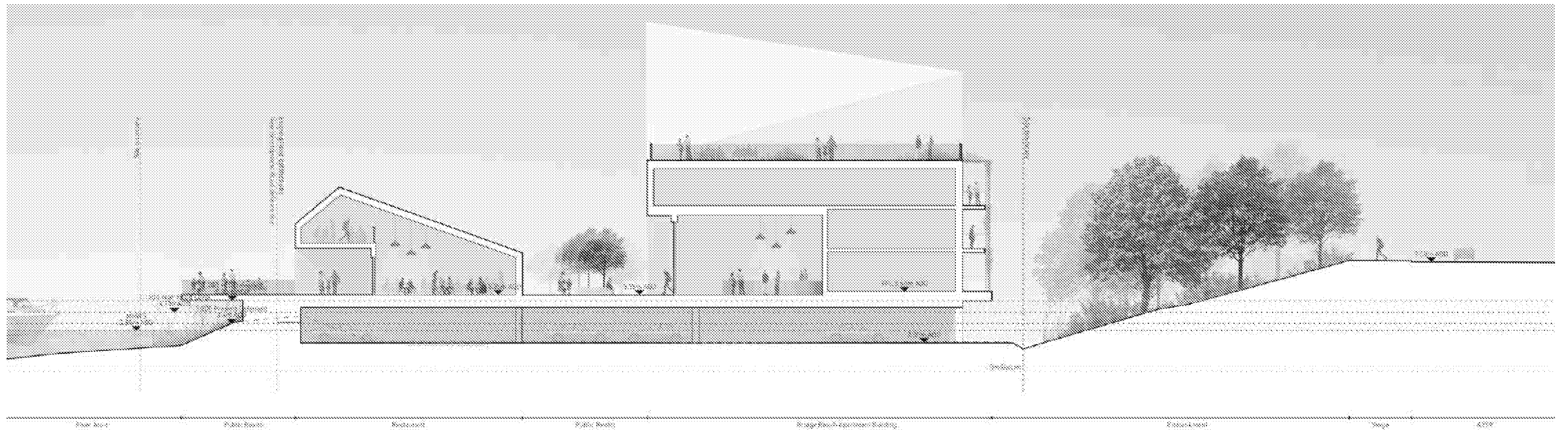


3. Along the southern boundary of the site provides an opportunity for a taller landmark building.

example: Norway

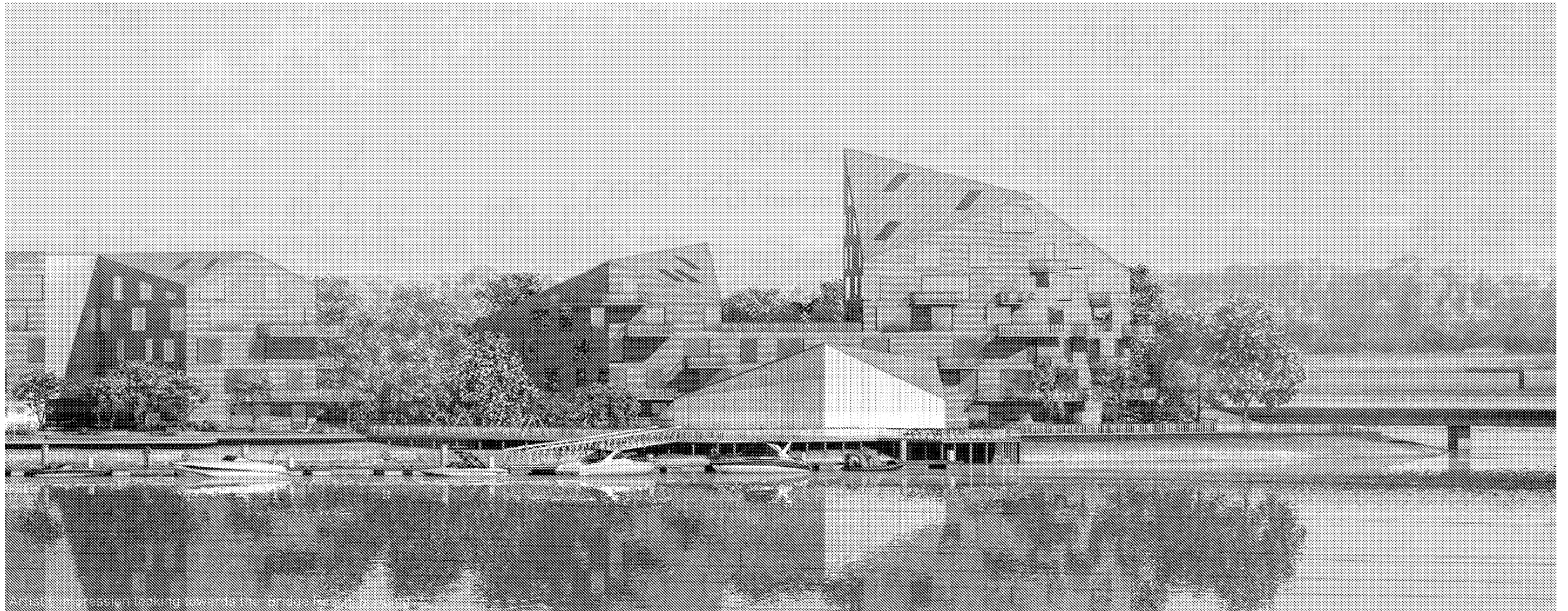


Section E



Section F

6.16. Bridge Reach cafe

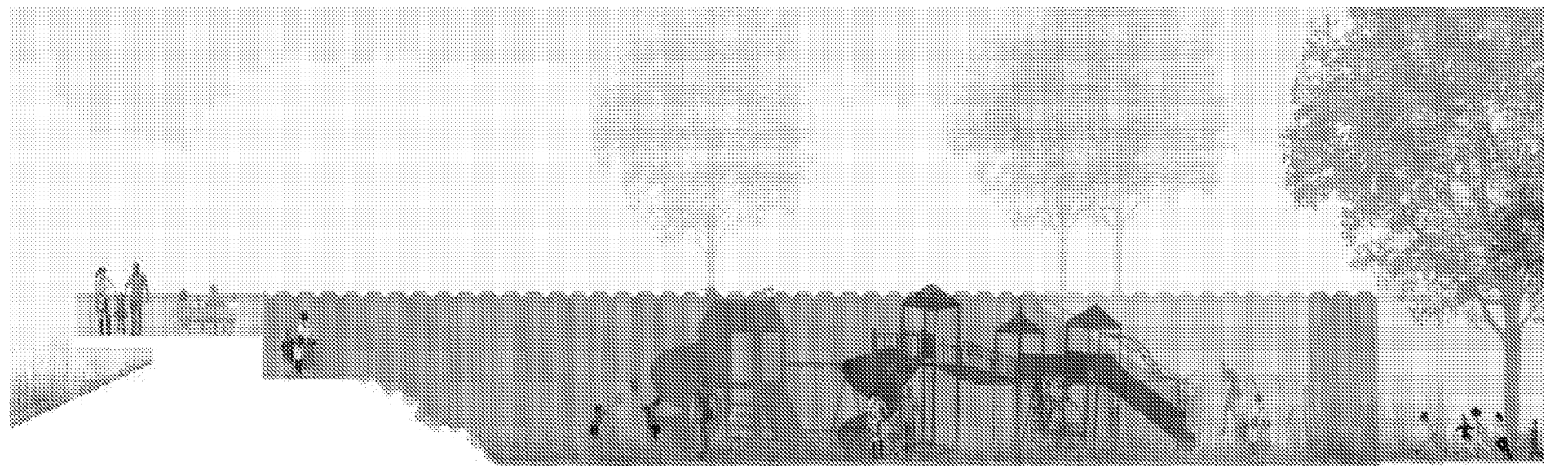


Artistic impression looking towards the Bridge Reach building

A new cafe is formed on the edge of the river, overlooking the river and creek park.

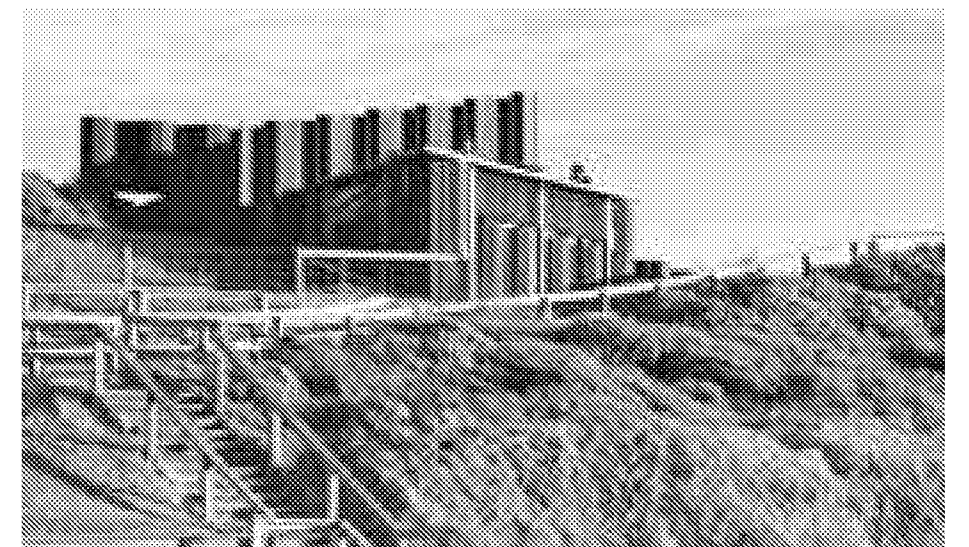
The industrial drainage ditch is re-profiled and relabelled as the creek. The banks are lowered and a marginal river stand created to enhance the existing habitat and provide a backdrop to the children's play area.

The remodelling of the main river will also allow greater capacity if water levels increase.





Artist's impression looking over the creekside play area.



Example images providing an idea of the type of environment and design for the Bridge Reach Cafe and decking overlooking the River Arun and saltmarsh.

6.17. Public & private spaces

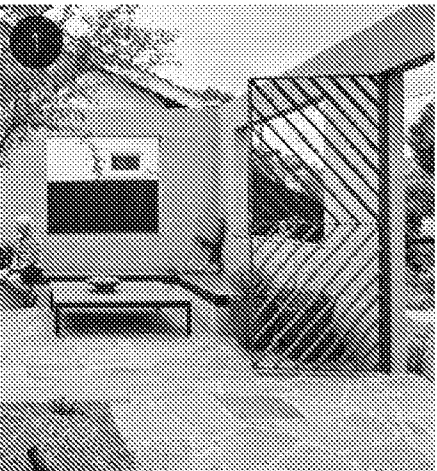
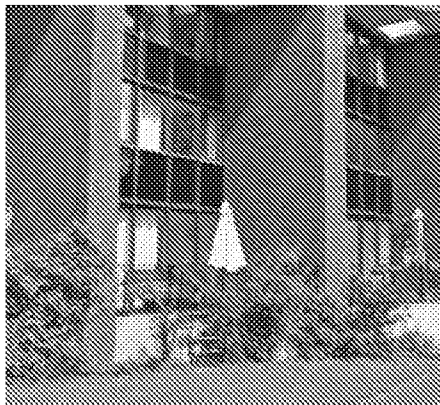
The public realm is given precedence over the highway. With the exception of the primary play area the public realm is located on the new ground plane, above the flood defences (upper ground). This provides direct access to the flats and views over the river.

A series high quality external public and private spaces throughout the site are planned to create a varied and vibrant public realm. These spaces are linked by the riverside path and accessed directly from the residential buildings.

The interplay between public and private space is planned to maximise the impression of openness for both user groups. Therefore the semi-private shared courtyards are physically separated from the public realm by the swales but maintain visually connected. The public play areas and picnic areas are set down below the level of the flood defences (but still well above the future high annual tide level) allowing views over the top from the path.

These spaces aim to facilitate social interaction, neighbourhood building, and strengthen community cohesion.

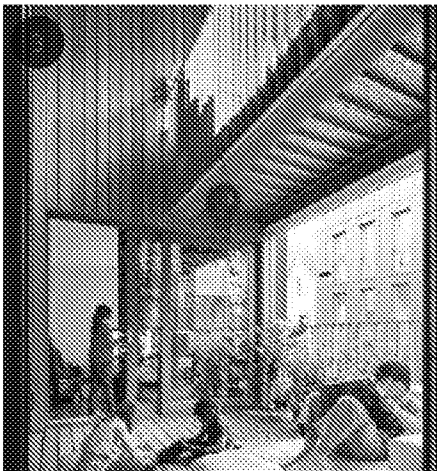
For each unit, it is envisaged that they will be provided with a private balcony space on the upper floors and a private enclosed space for the ground floor units.



Visual connection between public and private space will be blended into the landscaping.
example: Melbourne, Australia



External play areas, seating and localised planting create safe and naturally surveillanced public realm.
example: Marmalade Lane, Cambridge



Internal and external shared spaces provide opportunity for social interaction.
example: Former soap factory, Brussels

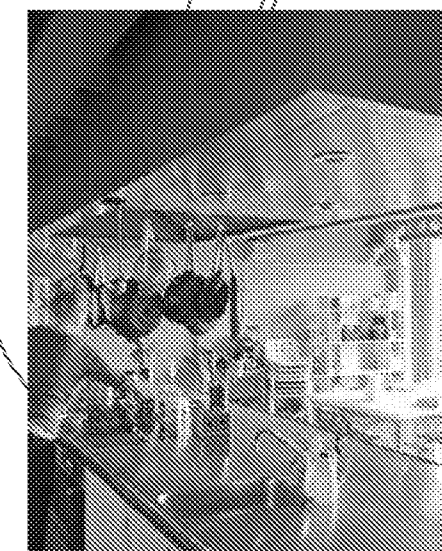
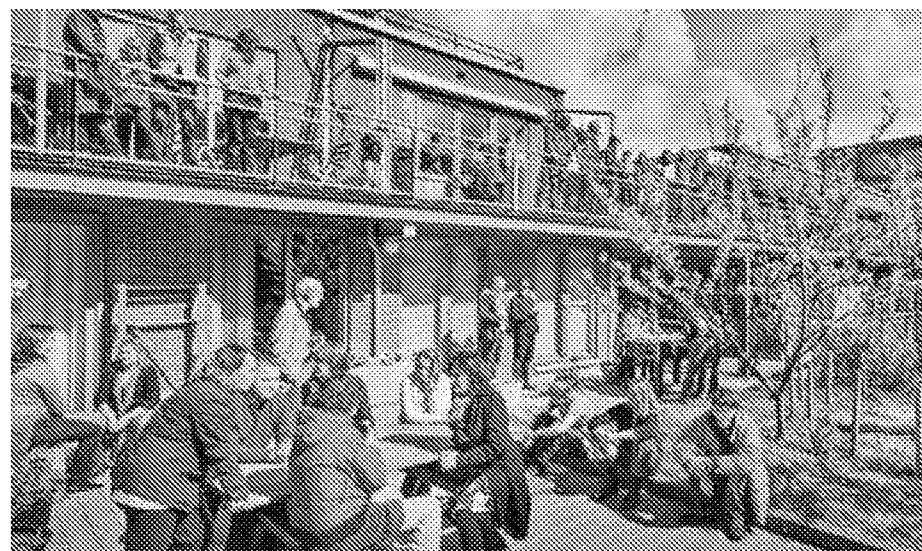
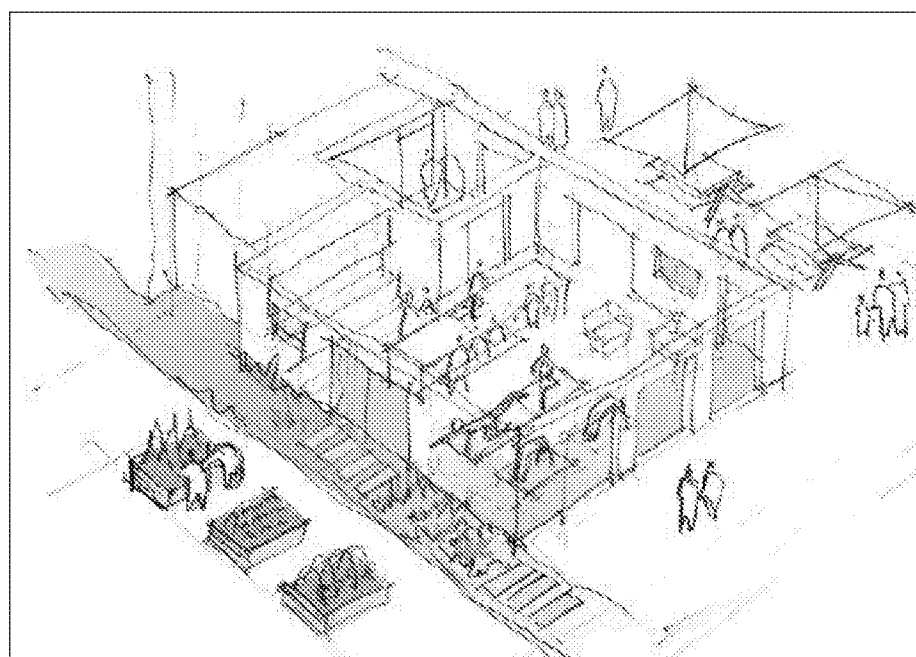


6.18. Shared houses & amenity

As people have been forced to spend more time in their homes (during lockdown), the social and physical fabric of our communities has altered. By constructing new housing with community infrastructure built-in, it is possible to make homes work harder for their occupants whilst allowing communities to survive and flourish.

Flexible spaces within units, additional facilities within larger developments, and/or 'shared houses' could help to create mix and variety. And, as residents' wellbeing is greatly improved when there are chances for mutually beneficial interactions, we plan to create connections to outdoor shared space. A balance of shared and communal spaces to improve interactions, and indoor private space for privacy and contemplation.

Shared courtyards and
and shared houses in the
North Court and South
Court apartment building.



6.19. Nature & public spaces

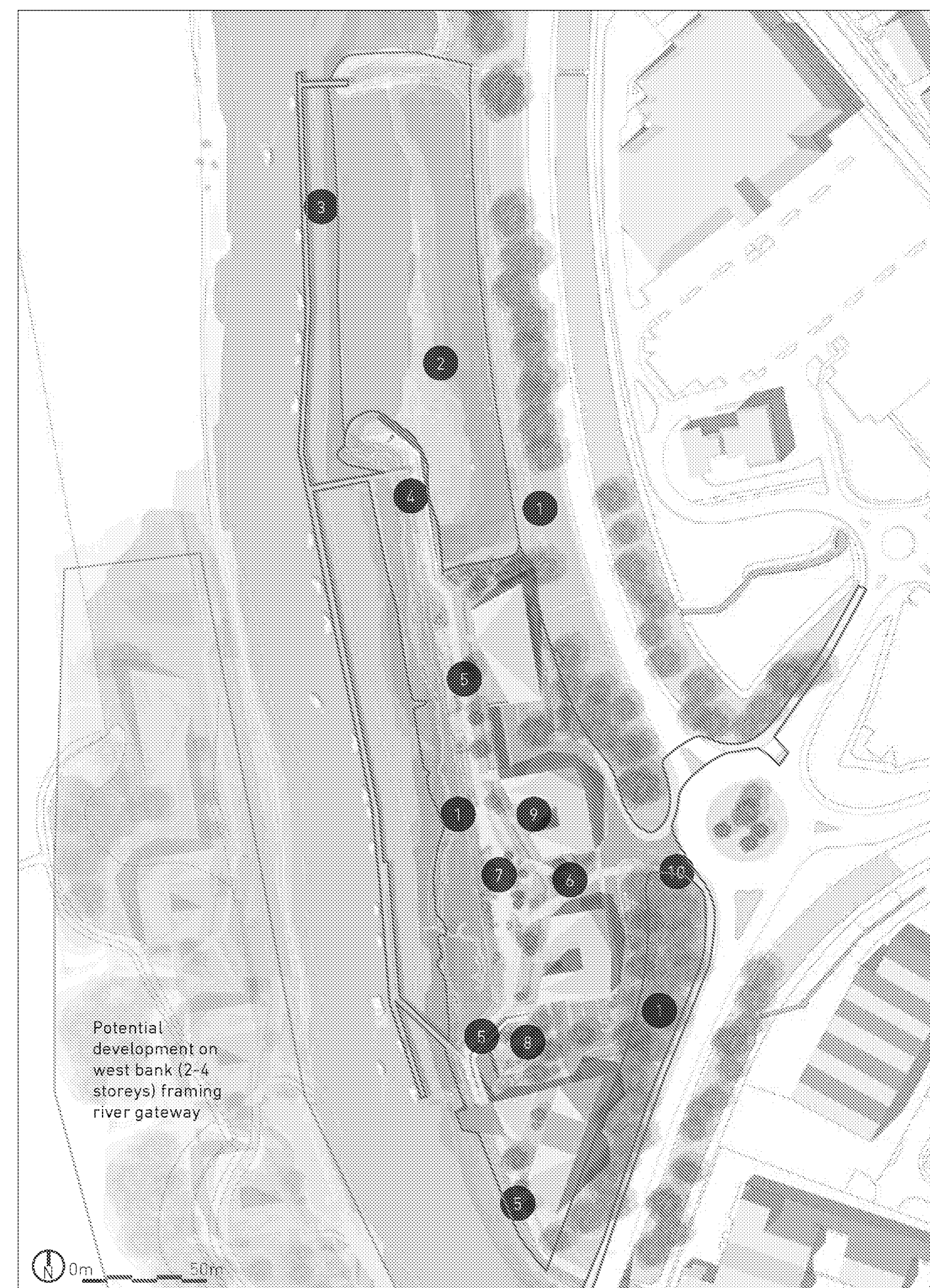
The current site is a slither of land between the A259 and the River Arun. The site is at once on the edge of Littlehampton Town and on the edge of the Climping Gap. The existing flood defences have created a cut off from the usual interflow between the land and the river. The proposed landscape plan seeks to establish a new relationship between land and sea with access from the land to the river and to protect the existing riparian habitat.

Hampton Quay will mark the urban edge to Littlehampton until such time as West Bank is delivered. When West Bank is delivered Hampton Quay will form one side of the River gateway from Arun into Littlehampton. It will also be within the extended boundary of the Town, well within the settlement boundary.

Views into and out of the development have been carefully considered

The key elements of the landscape plan are illustrated opposite.

1. Roadside woodland
2. Salt marsh
3. Pontoon walkway
4. Bird hide
5. Riverside walk
6. Hampton square
7. Riverside play area
8. Creekside play area
9. Private courtyards
10. Cyclepath



6.20. Landscape; open space

" ... all open space of public value, including not just land, but also areas of water such as rivers, canals, lakes and reservoirs which offer important opportunities for sport and recreation and can also act as a visual amenity".
Open Space, Sport and Recreation Study, ADC, March 2009.

Parks and gardens
Accessible, high quality opportunities for informal recreation and community events.

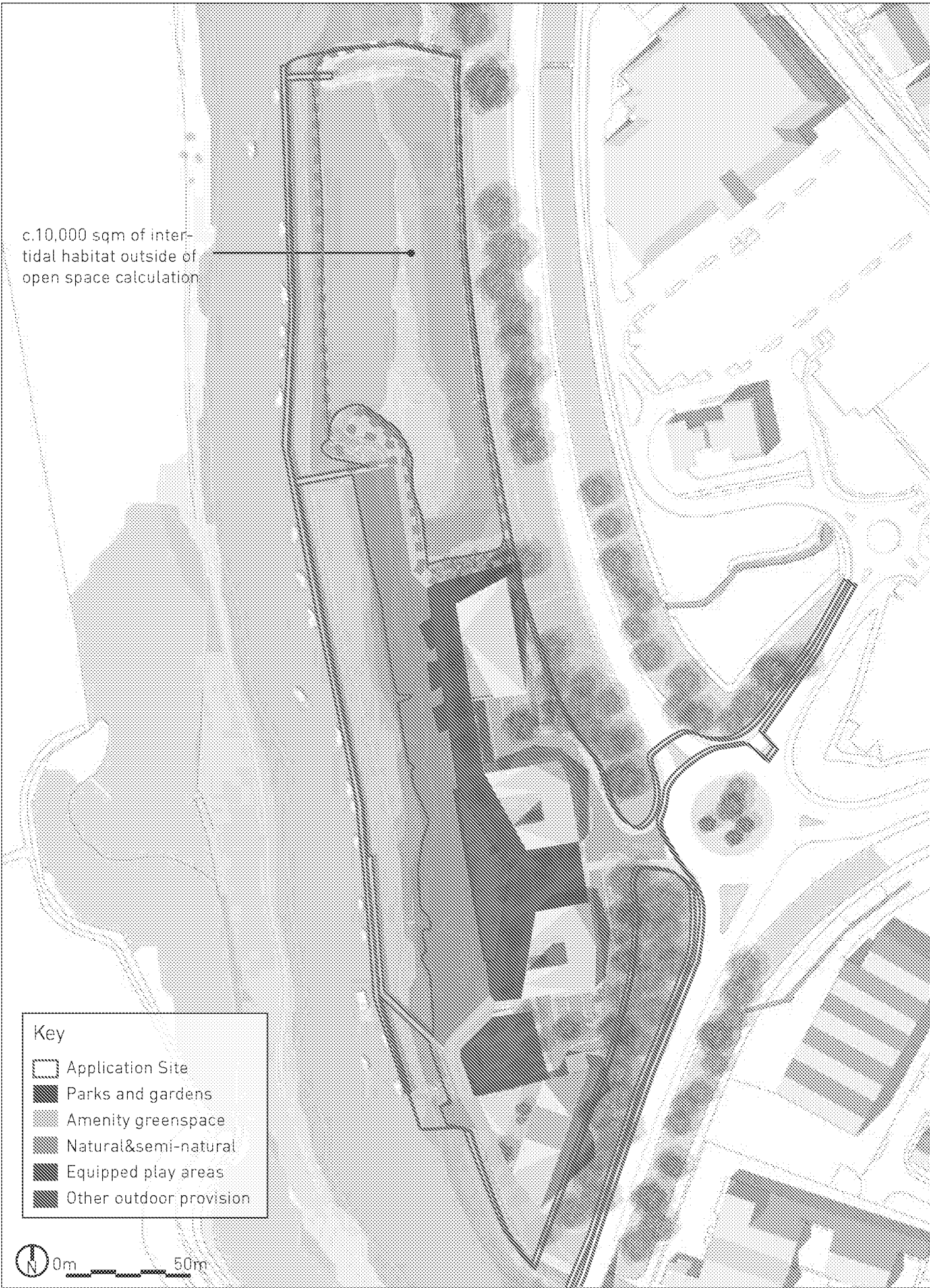
Amenity greenspace
Opportunities for informal activities close to home or work or enhancement of the appearance of residential or other areas.

Natural and semi-natural greenspaces
Wildlife conservation, biodiversity and environmental education and awareness. Includes urban woodland and beaches, where appropriate.

6.20.1. Future Maintenance & Management
Developer contributions will be obtained for other works and secured through a S106 agreement or chargeable through CIL, in line with the council's policy. These contributions will go towards securing of affordable homes, management and maintenance of public space.

Use	Requirement (sqm)	Provision within development (sqm)
Public Open Space		
Parks and gardens	1848	2200 (exc SUDs)
Amenity greenspace	1386	1800
Natural & semi-natural	4158	4500
	7392	8500
Play Space		
Equipped/designated play areas	578	800
Other outdoor provision	693	800
	1271	1600
Allotments	578	offsite contribution
Total open & play space	8663	10100

Health & Fitness Provision	6.6	10
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6.20.2. Calculations

The open space provision requirement has been calculated for the site in accordance with the open space, playing pitches and built sports facilities supplementary planning document, January 2020 and the open space play calculator.

NOTE: All calculations shown are based on the standard requirement for open and play space.

6.20.3. STEP 1-Calculates population generated by housing development

105 dwellings x 2.2 = 231 New population

6.20.4. STEP 2 - Calculate the open space requirement generated by housing development

Public Open Space

Parks and Gardens - 8000sqm x 231 / 1000 = 1848sqm

Amenity Greenspace - 6000sqm x 231 / 1000 = 1386sqm

Natural and Semi-Natural - 18000 x 231 / 1000 = 4158sqm

Play Space

Equipped / designated play areas (LAPS/LEAPS)

2500 x 231 / 1000 = 577.5sqm

Other outdoor provision

3000 x 231 / 1000 = 693sqm

Provided

Allotments

2500 x 231 / 1000 = 577.5sqm

6.20.5. Step 3 - Determine if provision should be on-site or off-site?

Public Open Space - On - site contribution

Allotments - Off - site financial contribution

Play Space

LAP - On-site provision of land

LEAP - On-site provision of land

NEAP - On - site provision of land

6.20.6. Step 4 - Calculate the financial off-site contribution

Allotment - Off-site contribution

Cost per sqm - 577.5 x 3.50 = £2021.25

6.20.7. Step 5 - Calculate the contribution for maintenance sums

Maintenance for Public Open Space - 0.1 to 1ha

£16.88 per sqm over a 20year period.

7392sqm x £16.88 = £124,777

Maintenance for Public Open Space - greater than 1ha

£11.23 per sqm over a 20year period.

Maintenance for Play Space annual cost (per play site)

*note discrepancy in open space calculator where only one play site is allowed for.

£1500 x 20 years = £30,000

Proposed play areas amount to 2no.

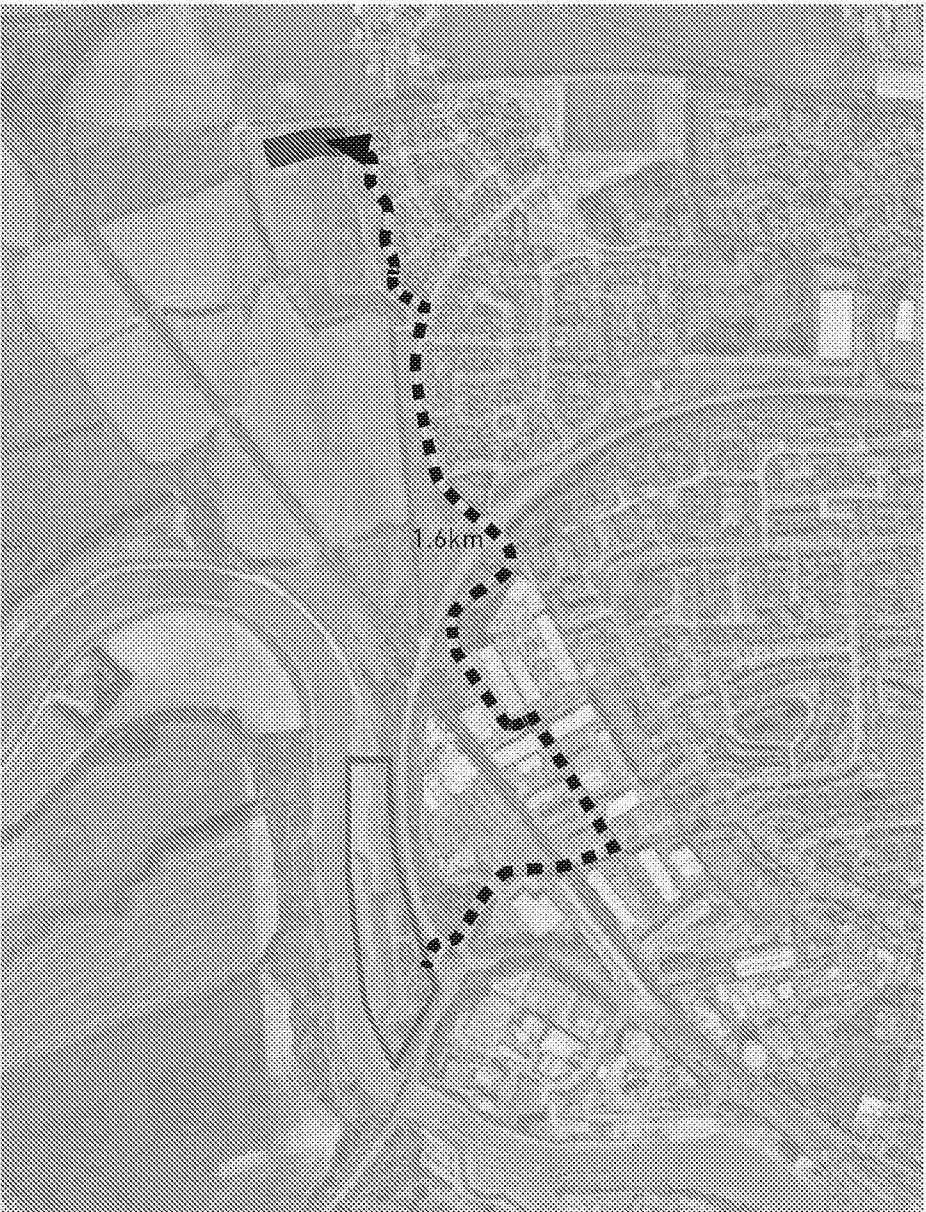
£1500 x 2 = £3000

£3000 x 20 years = £60000

6.20.8. Step 6 - Identify sites which could benefit from an off-site contribution

The Kingley Gate development approx 1.6km cycle/walk from the application site using cycle/foot paths could provide potentially the provision for allotments.

Existing allotments have been implemented in the north of the Kingley Gate Development and could potentially be extended to provide the 577.5sqm of allotments.



It is envisaged that the proposal will provide two areas of play. A Local Equipped Area of Play (LEAP) will be located on the lower ground level, within the Bridge Reach character area. This would cater for younger children with some provision for older children, such as basketball hoops against the sheet piling. A mezzanine style decking area will be provided to overlook this space for parents and carers to enjoy.

A buffer zone will be incorporated within this area, while the level difference between the play area and the upper ground dwellings will help to reduce noise transfer.

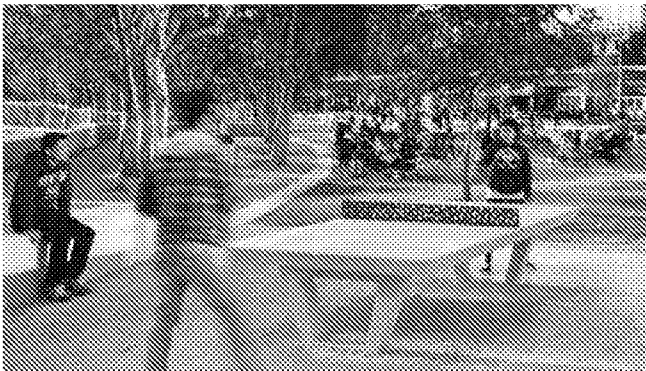
On the Upper Ground Level, along the riverside, an area of other outdoor provision is indicated for older age ranges. This is likely to involve outdoor exercise equipment, informal play areas and outdoor games such as a boules, table tennis and outdoor board games.

Due to the nature of the site, both of the proposed areas do not identify as conventional play spaces, however, they have been designed and located to tailor towards different ages befitting the multi-generational residency of the scheme, and providing an inclusive environment at a unique destination.

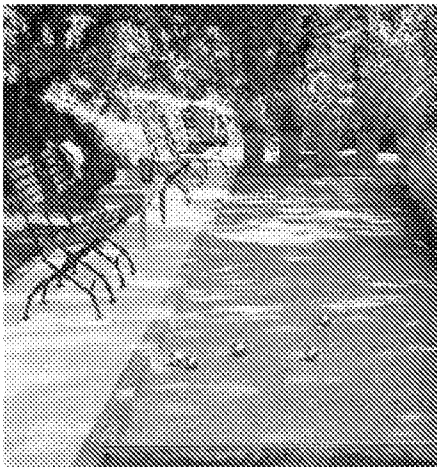
Other various off-site provisions are to be determined from CIL calculations during the planning process.



Proposed play area on the lower ground level



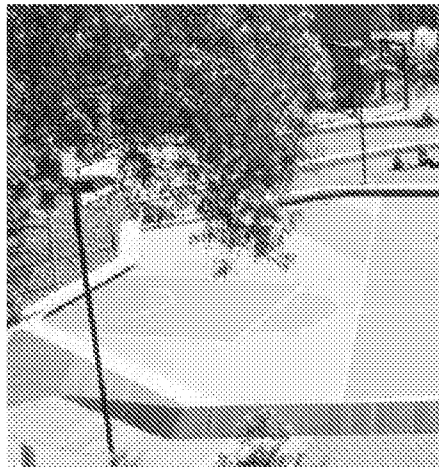
External tables tennis



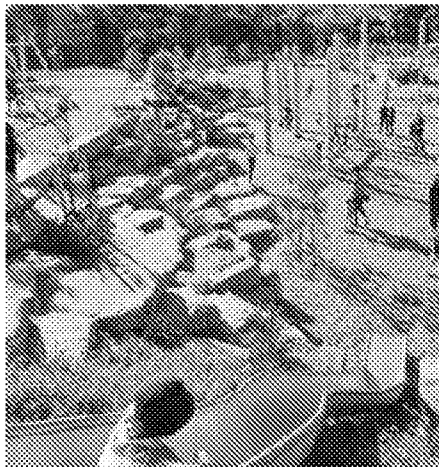
Boules sand pit



Outdoor board games



Basketball zone



Play area

6.21. Nature; for playing & learning

The **Creekside** play area towards the southern part of the site could include a climbing wall, climbing frames and small dens nestled in the rockery and trees.

The **Riverside** play area will provide smaller frames alongside walkways and cycle paths. The new **Bio-swale** provides water voles with an improved habitat with suitable vegetation.

This could also become a learning space for young children. In addition to this, a **new bird hide** on the **Saltings spit** could provide education into wintering and breeding birds.



6.22. Nature; biodiversity

Working alongside the ecologists, provision for biodiversity enhancements has been implemented within the proposed development. Please see EclA for further information

6.22.1. Priority habitats

A soft landscaping scheme accompanies the scheme that is sensitive to its coastal surroundings. It is envisaged that the extent and species of the saltmarsh vegetation will be monitored annually through the first five years of the development.

6.22.2. Reptiles

Compensatory habitat for Reptiles is not considered necessary for the scale of impacts predicted on this species. However, a potential receptor site may be located just outside of the site along the highways embankment or just north of the site

6.22.3. Water Voles

The proposal provides a net gain in water vole habitat in three methods. Recent surveys on site have found no evidence of water voles on site and therefore the off site compensatory measures will be finalised prior to development.

On-site habitat compensation has been provided in the form of a Bio-Swale along the upper level as well as improvement, widening and extension of drainage ditches within the site boundary. In addition, potential mitigation habitats which could be used have been identified within 2km of the site boundary. A survey is to be provided to ensure these sites are suitable for trans-location.

6.22.4. Bats

Native tree species to maximise biodiversity including insects will benefit foraging bats. An ecologically sensitive lighting scheme will be in accordance with guidance produced by the Bat Conservation Trust. The majority of the planting along highways embankment will be retained which will allow bats to continue to use for foraging and commuting throughout the life of the development.

6.22.5. Wintering Shorebirds

The development scales down towards the saltmarsh minimising impact on wintering shorebirds where possible. As mentioned previously, the saltmarsh areas will be monitored to ensure any localised erosion can be remediated.

6.22.6. Breeding Birds

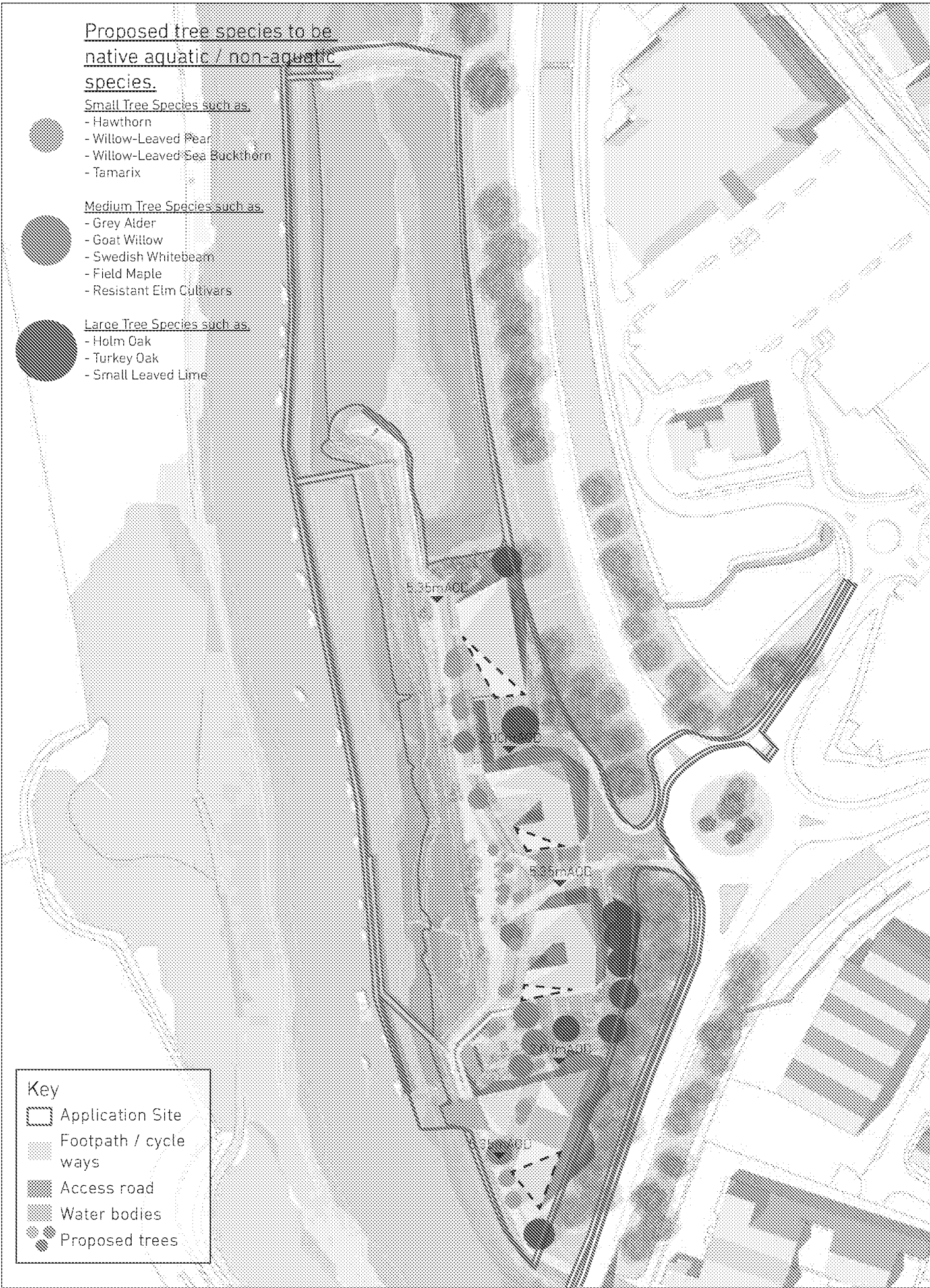
The majority of the planting along the highways embankment will be retained. Therefore, nesting habitat for the existing breeding bird assemblage has been retained where possible. Additional tree and shrub planting will be incorporate where appropriate that will provide new nesting opportunities.

6.22.7. Bees and Insects

Proposed fruiting shrubs and trees, and flowering plants provide source of food and nectar and maximise insect diversity.

6.22.8. Trees

A mix of small to large sized, native, aquatic and non-aquatic species are proposed. Majority of existing are outside of the site boundary and therefore impact on these are minimal.



6.23. Homes & buildings

The architectural design is to be a reserved matter. However, it is expected that the design will be of high quality, no matter what the style.

It is envisaged that the buildings will be built from brick or tiles so that they are in keeping with the existing buildings along the riverfront in Littlehampton.

Several projects within Littlehampton have been granted which acknowledge the surrounding context, however, contribute a distinct style to the town. The include the housing development along River road above Riverside autos and the East Beach cafe.

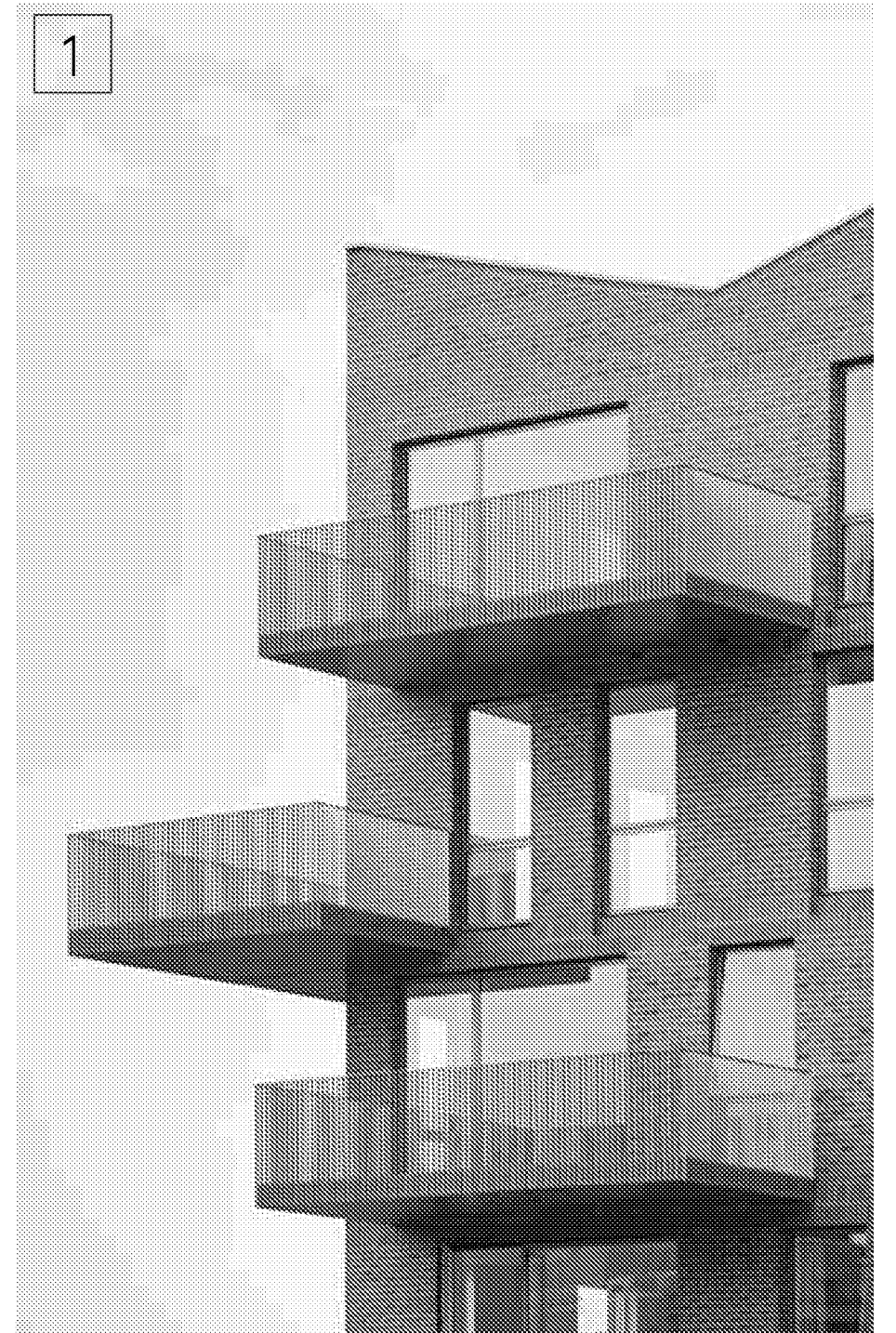
With this in mind, the proposal will pay homage to the buildings surrounding and along the River, while also introducing a more contemporary style to create a unique gateway into Littlehampton.

The buildings will maximise rural views north and west of the site providing projecting balconies and incorporate greenery enhancing existing biodiversity on site.



Key

- 1. Brentford Lock, London
- 2. Kaolin Court, London
- 3. Forest Mews, London
- 4. Fowlescombe Estate, Devon



7. Conclusion

The site, named Hampton Quay, is a strip of land, between the A259 road and The River Arun, on the edge of Littlehampton, that for a large part has been disconnected from the rest of the town.

The site whose form has been derived by various engineering projects over the years, firstly by the railway, then the bridge, then the A259, and most recently the flood defence and habitat compensation. There has been a direct access to the site for the past 30 years, since the formation of the A259, yet since then it has been under-utilised. The site was historically on the edge of the town and linked with Wick. As the town has grown and continues to grow it will become increasingly important as a gateway site, marking the entrance to Littlehampton from the river and by road.

The site does not lie within the settlement boundary yet it lies within the Littlehampton Economic Growth Area (LEGA), a key element of the Arun Local Plan, which surrounds the site on 3 sides. The LEGA sets out ambitious plans to deliver new houses, improve connectivity, enhance leisure activities and rejuvenate the riverfront. Hampton Quay has the potential to deliver on all of these ambitions and is available to do so now.

The Local Plan includes proposals to redevelop land to the west of the River Arun, from the town centre north parallel with the entire Hampton Quay site. It also identifies the need to deliver housing on Windfall Sites, such as Hampton Quay.

The total site area is 2.15 hectares of which 1.2 hectares (3.0 acres) is protected by modern flood defences built to a 1 in 200 year standard including allowing for sea level rise. The site was cleared during the east bank flood defence works and was left fairly bare in 2015. The site has a number of constraints, including flood-risk, land contamination, surface water run-off from adjacent land, ecology, trees. None of these constraints are unusual or onerous and there is an opportunity to provide betterment for all of these through the construction works.

The proposal is to create a landmark gateway development comprising up to 105 riverside apartments with commercial/leisure space, inclusive riverside walks, cycle paths, leisure moorings and a restaurant/café. The apartments are designed to provide



for all generations, with larger units that cater for young families and retirees, and provide shared spaces, promoting better social cohesion.

The plan is conceived as four apartment buildings, set within differing landscape character areas in response to the changing context of the site. A shared courtyard/garden space is provided at the ground floor of each building with a shared common space for residents to interact, cook and eat together. It is envisaged that the commercial space could be a crèche, gymnasium, or small business unit that complements the development.

The new development provides an opportunity to protect the important intertidal habitat, to deal with any existing contamination on site and to reduce nitrate run-off from the ditches. The existing saltmarsh is to be protected and where it is not well established this protection should enable it to thrive. Where some trees need to be removed to make way for the development these will be replaced more than two-fold and with a range of native species, enhancing biodiversity. A new bird hide and screen will provide the opportunity to view wintering birds without disturbing them. The development is designed to reduce light pollution with flanking elevations facing the river, gaps between buildings, parking below ground level and low level bollard lighting.

This water side, multi-generational development will not only form a stunning gateway into the town but it will reinvigorate this area, it will set a benchmark for the regeneration of West Bank and it will hopefully provide an exemplar for other coastal redevelopment in Sussex and beyond.



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Commendation 2015
Brick Awards, Winner 2014
Green Dot Award Winner '14
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